THE DRUG AND COSMETIC INDUSTRY

VOL. XXXV, No. 5 Established 1914 NOVEMBER, 1934

THOMAS R. FARRELL, Editor
ELMER F. SHEETS, Managing Editor
FRAZER V. SINCLAIR, Business Manager
FRANCIS CHILSON, Technical Editor
HARRY G. KELBLY, Circulation Manager

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Front Cover

With this issue we inaugurate a new series of specially designed covers, which will change each month. These covers will dramatize products or processes of the industry. The November cover dramatizes tablets.

THE DRUG AND COSMETIC INDUSTRY is published monthly by Drug Markets, Inc., Frazer V. Sinclair, *President and Treasurer;* Thomas R. Farrell, *Vice-president and Secretary.* Publication Address, 28 Renne Ave., Pittsfield, Mass. Editorial and General Office, 101 West 31st St., New York, N. Y.

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Printed by Sun Printing Co., Pittsfield, Mass.

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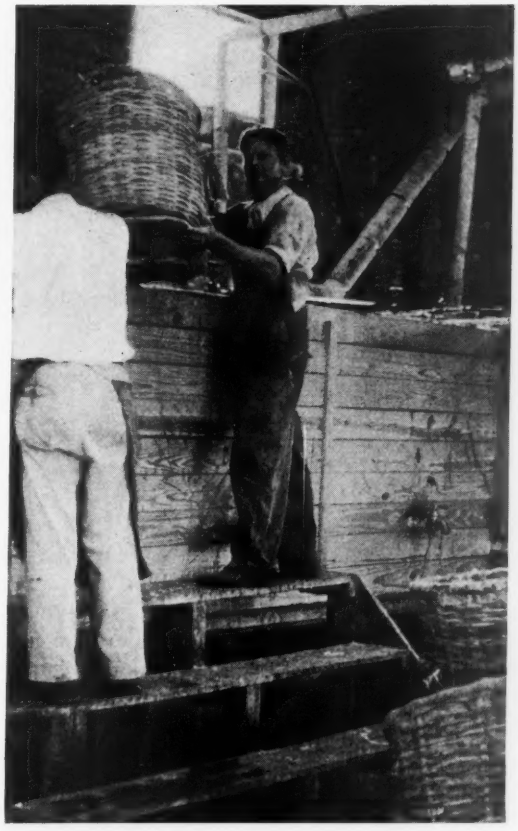

SUN BLEACHED BEESWAX

Placing shredded beeswax, already sun bleached for three weeks, in tank for remelting and purifying, after which it will again be shredded and taken to the outdoor frames for further bleaching in the direct rays of the sun at Sayville, Long Island.

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Many manufacturers of cosmetics and drugs have visited at Sayville, Long Island, the American establishment of the famous Koster Keunen of Aalst, Holland. During the bleaching season from the latter part of April through October you are cordially invited to visit us at Sayville.

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Phone: ALgonquin 4-2177

Represented in the Middle West by
Walter H. Jelly & Co., Inc.
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We manufacture and offer the highest grades of U. S. P. White Oils obtainable. They are absolutely odorless, tasteless and colorless.

Our list of these oils covers a wide range of viscosities and a wide range of gravities.

Any Viscosity
From 80 to 345 Saybolt @ 100° F.
Any Gravity .....From .845 to .900

PRIMOL
WYROL • MARCOL

Brand names which are a guarantee of finest quality.

These oils have for years set the standard for the best in White Oils. PRIMOL for Pharmaceutical purposes and WYROL and MARCOL for COSMETIC and TOILET Preparations are used throughout the world by the manufacturers of the finest preparations.

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In the general manufacture of cosmetic and toilet preparations these White Oils find widespread use. Outstanding values are offered in the popular brands:

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Specific gravity..... .835/.845

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Specific gravity..... .825/.835

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Snow White Parmo No. 1	125/130° F.
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Snow White Parmo No. 2F	105/110
Lily White Parmo.....	115/120
Lily White Parmo No. 3F	105/110
Cream White Parmo.....	115/120
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All products are guaranteed as to quality and uniformity. Specific information and experimental samples furnished on inquiry. Our technical staff will be pleased to assist you in your problems.

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PHARMACEUTICAL AND COSMETIC

WHITE OILS
and
PETROLATUMS

(PARMO is our brand name for Petrolatum)

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"It pays to buy the best" is a well worn phrase, but it bears repetition. Particularly in the purchase of raw materials is it vital that the best possible products be obtained. When you order STANCO White Oils and Petrolatums, you can feel assured that you are getting the finest that human skill and equipment can produce.

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2 PARK AVENUE, NEW YORK, N. Y.
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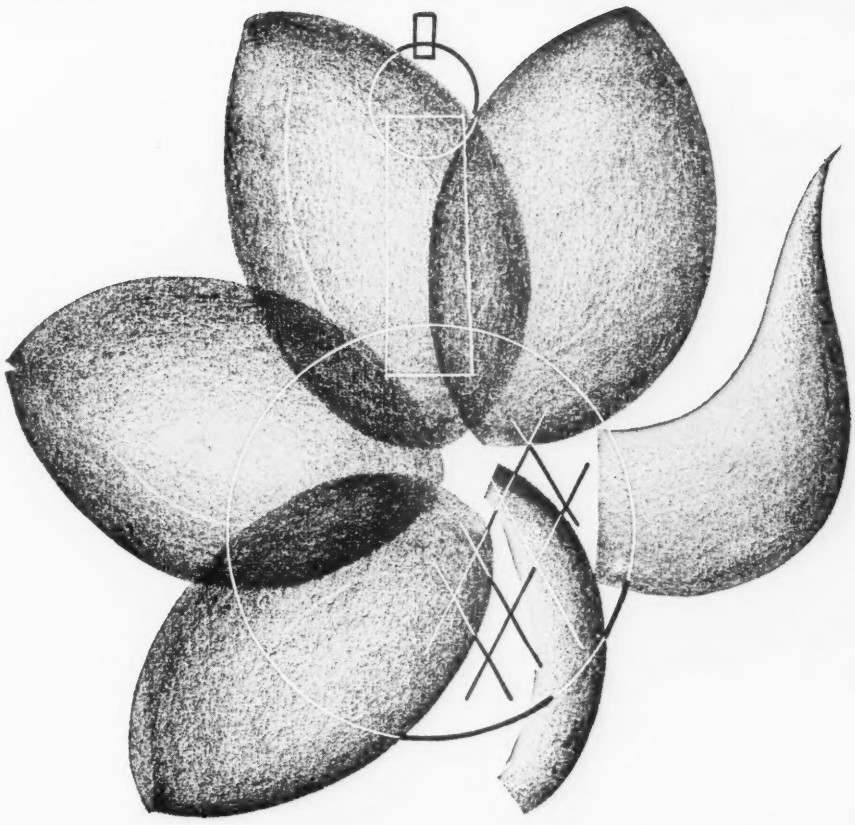

HERE'S A NEWCOMER IN THE NOVO LINE

NOVO FLORAL COLOGNE OIL

Eau de cologne is selling today in ever increasing quantities. To meet the many requests of perfumers for a fine cologne oil—at a low price—we have added a new creation to the Novo Line—NOVO FLORAL COLOGNE OIL.

The advantages of NOVO FLORAL COLOGNE OIL are many. First, because the price is low, you can produce a finished eau de cologne at a low cost. And because NOVO FLORAL COLOGNE OIL contains a slight amount of color, the coloring operation is completely eliminated for you . . . and you are assured of uniform, standard results.

With this new NOVO product as a base, too, you can build up perfumed eau de colognes by combining a toilet water of strictly "cologne" character with perfumes of all kinds.

Perhaps NOVO FLORAL COLOGNE OIL will help to simplify one of your problems. We offer our cooperation. Write today for further information. A sample will be sent to you upon request, without obligation on your part.

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DELAWANNA INC.
80 Fifth Avenue, New York, N. Y.

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FRITZSCHE BROS.
of Canada, Lt.
77-79 Jarvis St., Toronto

WE operate our branch offices where they do the greatest good—in or near cities where producers of toilet preparations maintain their factories. These are not merely sales offices. They are organized and staffed to be of genuine help to you, to give you the answers to many of your production problems, to show you the most effective way of using Fritzsche's products. Here you are assured of prompt, friendly service no matter when or how often you require it. Our branch managers and their associates *always* welcome the opportunity of serving you. Their cooperation is part of the broad Fritzsche Brothers service plan which we gladly extend to *all* users of essential oils, synthetics and aromatic chemicals, whether Fritzsche customers or not.

FRITZSCHE Brothers, inc.

"Fragrance Creates Sales Appeal"

78-84 BEEKMAN STREET
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Proprietors of PARFUMERIES de SEILLANS, Seillans, France

TOOTH POWDER COMES BACK?

Powder . . . once the leader among dentifrices . . . is coming back. To manufacturers working out formulae, we offer valuable assistance.

• TOOTH Powder consists principally of Calcium Carbonate—*C a, C O_3*—or precipitated chalk. To produce good powder you must start with good chalk. • In our development work in producing Snow Top Precipitated Chalk to customers' specifications, we have been able to obtain chalks of any desirable density. • This is of the utmost importance to those entering the tooth powder field. • We have also succeeded in doing away with black specks, grit, Aragonite and other physical impurities, and in overcoming alkalinity and other chemical handicaps—all of which must affect the quality of the tooth powder. • We are ready to place freely at the disposal of manufacturers of tooth powder, information which will be most helpful in developing their formulae.

SNOW TOP

PRECIPITATED CHALK

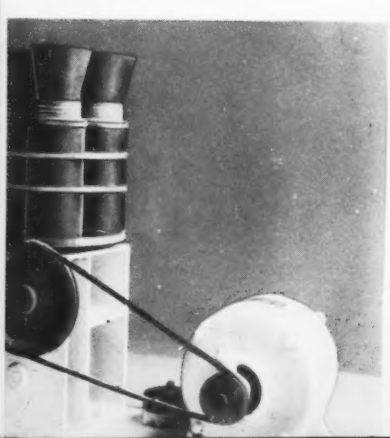
CRETA PRÆCIP U. S. P.

OVER

HOW MUCH?

. . . will fill a tooth powder can of given size?

• That depends on the apparent density—known to the trade as *Packing Density*. Less chalk of light density will be required than would be of medium or heavy. • Also upon the density of the chalk depend the "flowing quality" and polishing efficiency of your tooth powder. • Our chemists have covered all of these angles. Their findings and records put guesswork into the discard. They have the necessary figures on different types of chalk, which will enable you to determine the correct number of pounds per cubic foot, also the right size container. • These figures are freely available. Write for further data.



INDUSTRIAL CHEMICAL SALES COMPANY, Inc.
230 Park Avenue - - - New York City

This machine determines Packing Density. It consists of a platform on which are concentrically arranged vessels of known volume. • This platform is actuated by a shaft driven by a motor. A cam is set directly under the shaft attached to the platform. • Set in motion, the platform drops by means of the cam, with sudden action, 100 times a minute. • The machine is run for two hours, with the vessels filled with chalk. • A wide necked funnel screwed to the neck of each vessel allows chalk to feed intermittently into the vessel below. • At the end of the two hour period the funnel is removed and the chalk leveled off. • The weight of the chalk in the vessel, divided by the volume in cc. gives the packing density of that particular grade of chalk.

McKESSON

tops off another fine packaging job with

DUREZ CLOSURES

In seeking to establish a package which was new and bright and yet represented something stable in the trend of style, McKesson & Robbins have selected Durez caps to add the final touch to one of the year's most attractive packaging jobs. They feel that Durez closures are a definite assistance in promoting sales.

In addition to appearance and convenience, Durez closures have the advantage of being absolutely chemically inert to practically all drugs and cosmetics. They can in no way affect the contents and they provide a perfect seal that guarantees protection for your product.

For complete information on molded Durez closures, jars, display stands write General Plastics, Inc., 360 Walck Road, North Tonawanda, N. Y. Our test laboratories are at your disposal.

Do you make creams or lotions?

Have you considered molded Durez jars? The most important reason for their increasing use in the cosmetic field is . . . **women like them** . . . and what women like, **women buy!** They like their color; the smooth, sleek feel of them; their light weight and their goodlooking surface lustre. As for other advantages beside increased sales . . . they're odorless; moisture proof; easy to fill; easy to label; non-warping; practically unbreakable; colorful and weigh much less than the usual cream jar—a saving in shipping costs.

DUREZ . . . THE MODERN MOLDING COMPOUND

Take your pick—
they're all packaging winners!

The sole purpose of sampling and packaging attractively is to WIN MORE SALES. And to win more sales, a package first must win more attention than its companions on the shelf.

Whether it be perfumes or powders—capsules or cosmetics—dyes or drugs—look over the extensive line of Kimble Glass Vials first. Then take your pick, for each one is a packaging winner. Every vial is automatic-machine-made for uniformity and retempered for strength. There are Kimble Vials for Droppers, Applicators, Shaker Tops, Re-Seal-It-Caps, Goldy Seals, Slip Caps, Screw Caps of metal and Bakelite.

And further—Kimble Vials are air-tight and leak-proof. They are scratch-proof, sun-fast, non-inflammable and hold their shape and their contents permanently. They are so light in weight that shipping costs are pared to the minimum.

★ ★ ★

Play safe with your sampling and packaging plans by consulting Kimble first!

KIMBLE GLASS COMPANY

VINELAND, NEW JERSEY.

NEW YORK • PHILADELPHIA • BOSTON

CHICAGO • DETROIT

D&O
ESTABLISHED IN 1798

ESSENTIAL OILS
and Kindred Products

OIL PEPPERMINT PRIME NATURAL
single distilled

OIL PEPPERMINT "GOLDENMINT"
of extra smoothness for confections and chewing gums

OIL PEPPERMINT "PRISMENTHA"
redistilled U. S. P.

OIL PEPPERMINT "DIAMOND WHITE" USP twice rectified, of extra sweetness

OIL PEPPERMINT "SUPERMENTHA"
multiple rectified, imparting most delicate and refined peppermint flavor obtainable

Compare your peppermint flavor with the flavors of competing products. If yours is not equal to the best, consult us.

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180 Varick Street New York City

"The integrity of the house is reflected in the quality of its products."
Copyright 1930

Shortage in Lavender

Has Resulted in

High and Unsettled Prices

Try Our

LAVANDULA

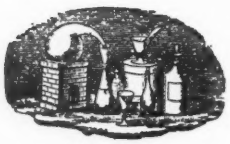
IN YOUR PREPARATIONS AND ESPECIALLY IN YOUR SOAPS

LESS EXPENSIVE

STEADIER IN PRICE AND QUALITY

MORE ODOR VALUE

than the ordinary Lavender oil



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ESTABLISHED 1820

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GRASSE PARIS ARGENTEUIL

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COME MANY IMPORTANT PRODUCTS TO SERVE THE NEEDS OF PHARMACEUTICAL AND TABLET MANUFACTURERS

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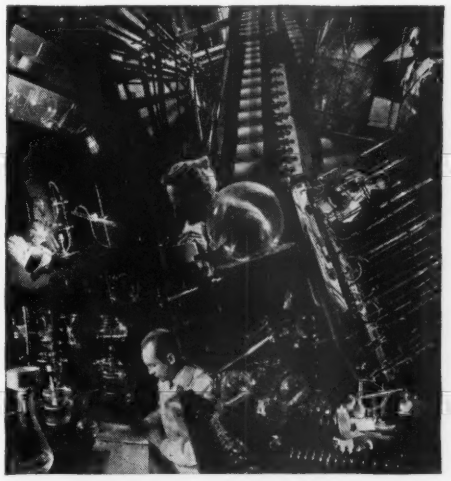
Creosote Beechwood
Creosote Carbonate
Guaiacol (Liquid)
Guaiacol Carbonate
Acetanilid
Acetphenetidin
Amidopyrine
Ammonium Chloride
Ammonium Carbonate
Antipyrine
Quinine Sulphate
Quinine Bisulphate
Quinine Hydrochloride
Other Quinine Salts
Cinchonine Sulphate
Cinchonidine Sulphate
Cinchona Alkaloids Mixed
Acid Acetylsalicylic
Sodium Salicylate
Salol
Methyl Salicylate
Acid Salicylic
Cinchophen
Neocinchophen
Rare Alkaloids
Silver Protein
Theophylline
Chlorbutanol (Hydrous & Anhydrous)
Caffeine
Caffeine Citrated



MERCK CHEMICALS

Used in the Treatment of Winter Ills, such as Coughs, Colds, Grippe and Pneumonia, are Particularly in Demand at This Time of Year. Adequate stocks are available for shipment and requests for information and prices will receive prompt attention.

Papaverine
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Codeine Phosphate
Dionin (Ethyl Morphine Hydrochloride)
Morphine Sulphate
Cocaine Hydrochloride
Potassium Iodide
Phenobarbital
Phenobarbital-Sodium
Barbital
Barbital-Sodium
Strychnine
Dextrose
Dinitro Phenol
Chlorthymol
Bismuth Salts
Mercurials
Oxyquinoline Sulphate
Milk Sugar
Benzocaine
Ephedrine Alkaloid
Ephedrine Hydrochloride
Ephedrine Sulphate
Procaine
Hexamethylene
Terpin Hydrate
Potassium Bromide
Sodium Bromide
Ammonium Bromide
Strontium Bromide
Citrates

EVERY product of the House of Merck is manufactured under rigid laboratory control and must meet the Merck standard of purity and uniformity.

The chemicals listed herein are only a few of more than 3000 products available under the Merck label and guaranty.

MERCK & CO. Inc. **Manufacturing Chemists** **RAHWAY, New Jersey**

NEW YORK PHILADELPHIA ST. LOUIS ★ In Canada: Merck & Co. Ltd. MONTREAL and TORONTO

MODERN COSMETICS

is now regarded as an indispensable reference work for those engaged in the manufacture of cosmetics. Its four hundred pages of practical, usable information for the manufacturer of cosmetics is the result of more than a year's work carefully compiling and checking information. This is the first practical manual for the manufacturer, covering every phase of cosmetic production. It will be found particularly valuable to the manufacturer with limited technical training.

Contemporary Comment

"This book is a well-constructed volume, being printed in type of convenient size, on substantial paper, and well bound.

"Its purpose, set forth in the author's Foreword, is 'to provide a practical manual on the composition and manufacture of cosmetic products.' He has relied upon the cooperation of leading technical men in the preparation of the work, and his collaborators have been well chosen. The information, while highly technical, is presented in a readable manner, and the non-scientific cosmetic executive will find it interesting reading.

"The text is divided into twenty-six sections, and concludes with some valuable recommendations regarding the equipment of a cosmetic factory, the lay-out, and the proper packaging of the different types of cosmetics. The first section, containing 40 pages, is devoted to a general discussion of the different types or classes of cosmetics—namely, emulsions, solutions, soaps, pastes, powders, sticks, jellies, suspensions, mucilages, cakes, and oils. It contains some theoretic material, especially regarding emulsions, and discusses how the operations for producing the different classes are conducted.

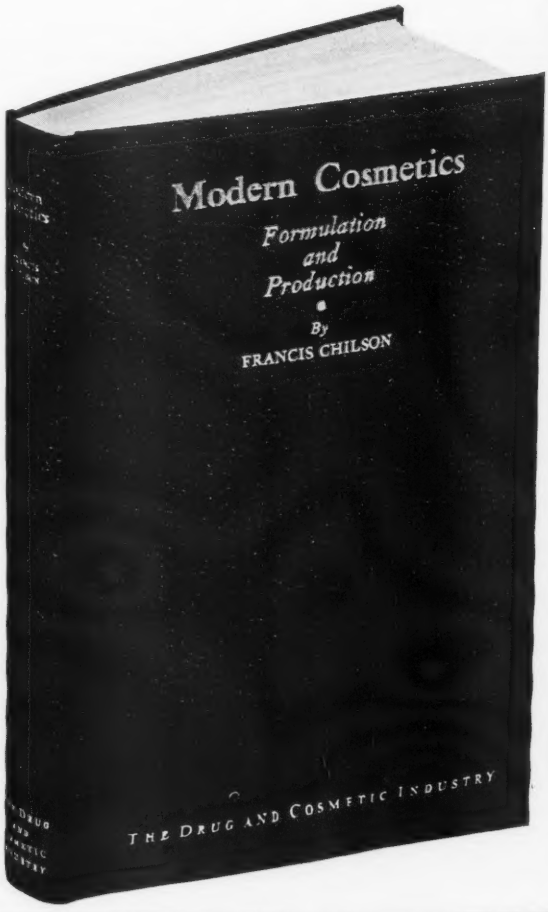
"Several sections are often devoted to the same general type of product; for example, there are 47 pages wherein each variety of cream is given special attention, the purposes for which it is used are noted, and many type formulas are given for such preparations as cleansing, tissue, cold, and hand creams. Eight sections have to do with preparations for the treatment of the hair and scalp, including modern waving fluids and jellies.

"The formulas, as far as can be determined from a superficial examination, are modern in their composition, and embody recent contributions in the way of chemicals to the manufacturing industry.

"The book ends with a Buyers' Guide, enabling one to locate the source of various chemicals, packaging equipment, and machinery essential to the manufacturer of cosmetics."

—H. C. Fuller in INDUSTRIAL AND ENGINEERING CHEMISTRY

PRICE: $6.00



THE DRUG AND COSMETIC INDUSTRY
101 West 31st St., New York City

Please send me at once "Modern Cosmetics" for which I enclose six dollars.

Name .....

Address .....

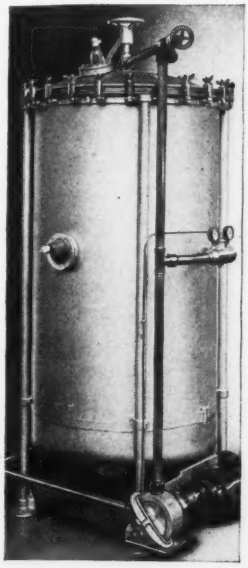
City..... State.....

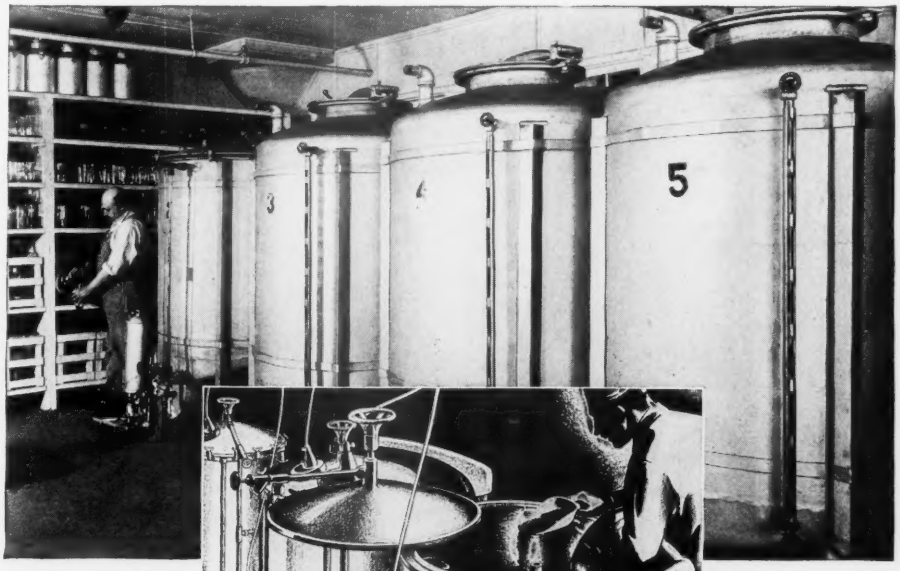
Company..... Title.....

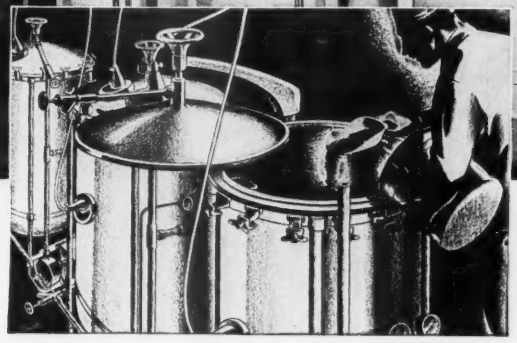
If after 24 hours examination I wish to return "Modern Cosmetics" it is understood that my money ($6.00) will be refunded at once, on publisher's receipt of the book.

NUMBER THREE OF A SERIES

HOW THE MANUFACTURING CHEMIST, DRUGGIST AND PERFUMER USE PFAUDLER GLASS-LINED EQUIPMENT







Above, at left—Pfaudler "Pre-Vak" Glass-Lined Percolator.

Above—Glass Lined Tanks for the Storage of Vanilla Extract.

Improve your products with Pfaudler Glass Lined Equipment for:

- Storage of essential oils, perfumes, solvents, acids, etc.
- Manufacture of shaving cream
- Mixing of lotions
- Extraction of vanilla and other flavorings
- Vacuum distillation of chemicals
- Distillation of delicate serums
- Manufacture of C. P. chemicals
- Evaporation of salts
- Storage of elixirs, antiseptics, etc.
- Treatment of biologicals.
- Concentration of acids and solvents
- Percolation of drugs and herbs

If Extraction is part of your operation, investigate the "Pre-Vak" process!

THE Pfaudler "Pre-Vak" process of extraction revolutionized the manufacture of vanilla extracts, reducing extraction time from as many as thirty days to a few hours! Better yet, strong, clear extracts have been obtained, evaporation losses have been reduced, filtration is carried on during percolation, sanitary operation has been made possible.

Other manufacturers, in whose product extracts are used, have quickly adapted the "Pre-Vak" process. The percolation of roots and herbs used in medicinals, the processing and purifying of liquors, the manufacture of extracts used in flavoring tobacco, etc., are among the most frequent uses.

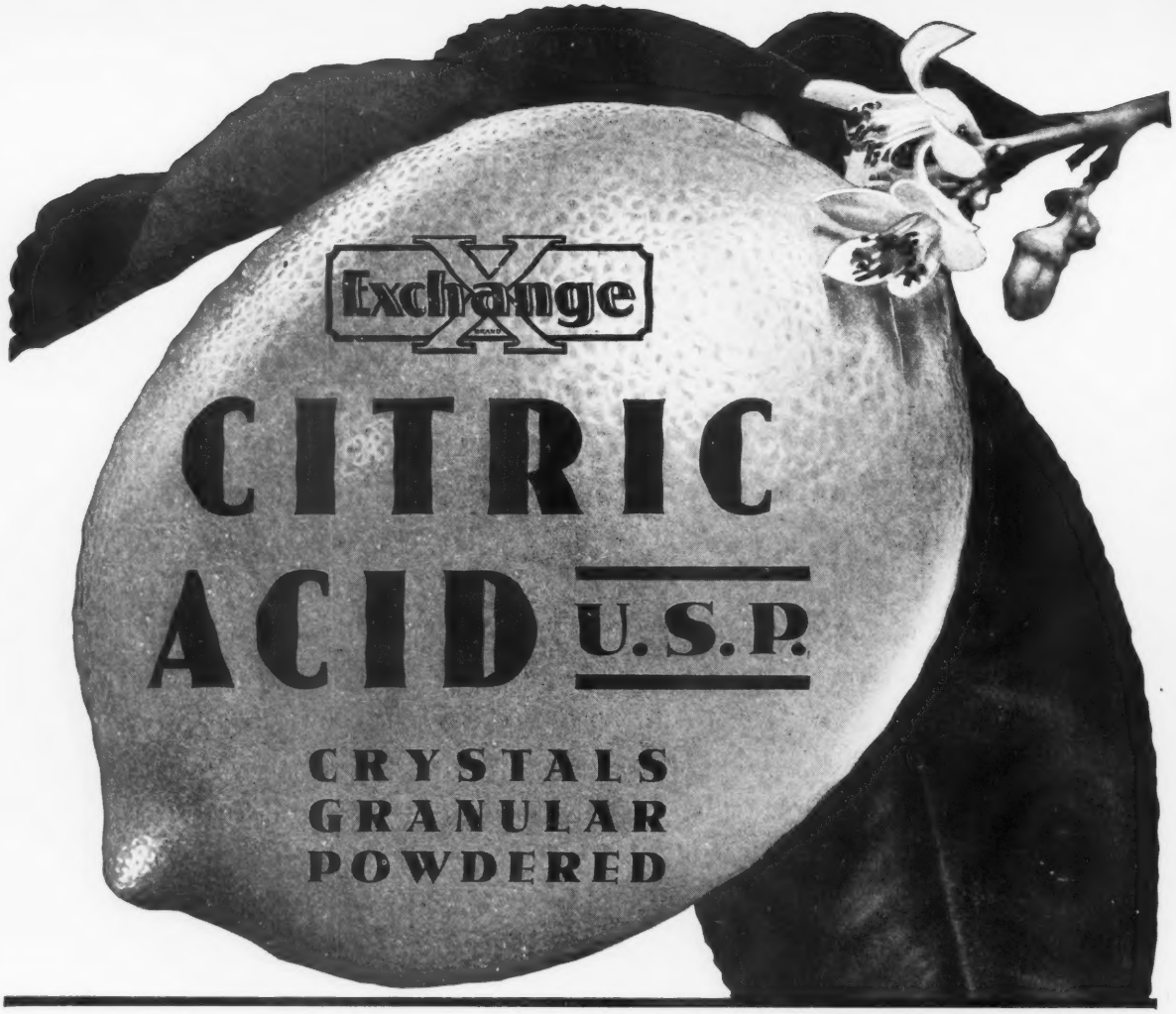
This process, combined with the use of Pfaudler glass lined storage equipment for both the percolating menstrum and finished product, enables you to produce extracts of the finest quality, protected against contamination from start to finish. Further information on request.

THE PFAUDLER CO., 1509 GAS & ELECTRIC BLDG., ROCHESTER, N. Y.

Branch Offices: New York City, Chicago, Boston, Philadelphia, San Francisco (Pfaudler Sales Co.)

PFAUDLER *glass-lined steel* EQUIPMENT

MULTIMIXERS • STORAGE TANKS • DISTILLATION EQUIPMENT • EVAPORATING PANS • REACTION KETTLES • DOUBLE MOTION MIXERS



MADE FROM AMERICAN LEMONS

by the Exchange Lemon Products Company of Corona, California. Backed by the Sunkist group of 13,200 citrus growers—largest in the world.

Immediate shipments from warehouse stocks in New York, Chicago and Philadelphia. For prices on kegs, barrels or carloads, consult any of the following distributors:

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Products Department—CALIFORNIA FRUIT GROWERS EXCHANGE, Ontario, California

» » *the noble* IRONE

"..one of the most noble of odorous substances produced in the cells of perfume plants by the intricate and mysterious laboratories of nature"
..Dr. Albert Verley

After a search extending over more than forty years, the dream of some of the most profound scholars of our day

Irone Synthetic

HAS NOW BEEN ACHIEVED BY DR. ALBERT VERLEY

By no means to be confused with Orris Absolute from Orris Butter, sometimes sold under the trade name of Irone, **Irone Synthetic Verley** is that precious element whose synthesis has been sought ever since the discovery of Irone Pure Natural in 1893.

Overcoming the enormous difficulties of production in commercial quantities, Dr. Albert Verley has now made true Irone accessible to all.

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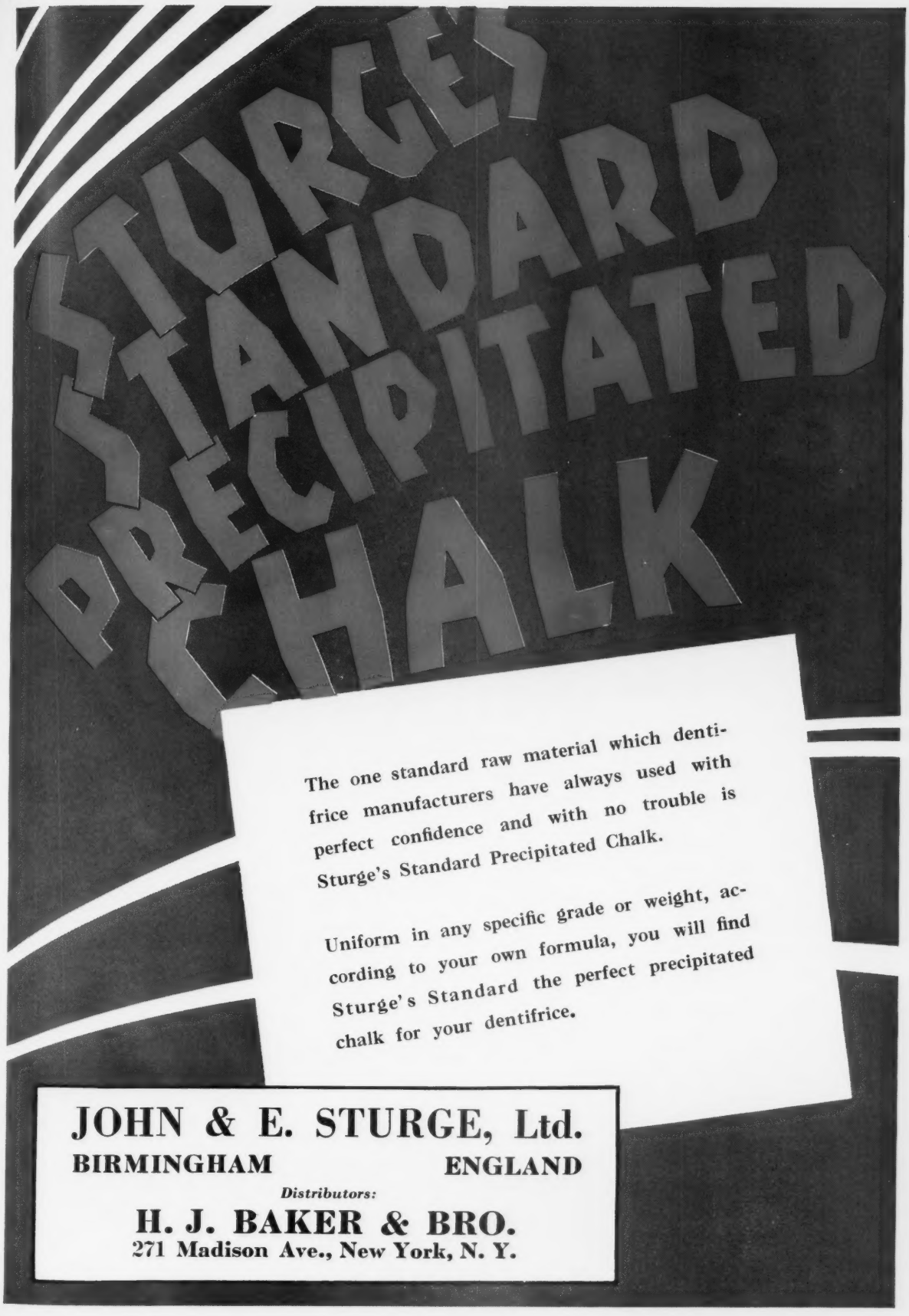
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The one standard raw material which dentifrice manufacturers have always used with perfect confidence and with no trouble is Sturge's Standard Precipitated Chalk.
Uniform in any specific grade or weight, according to your own formula, you will find Sturge's Standard the perfect precipitated chalk for your dentifrice.
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Benzyl Acetate
Benzyl Butyrate
Benzyl Cinnamate
Benzyl Formate
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Benzyl Propionate
Benzyl Salicylate
Benzyl Valerate
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Butyl Acetate
Butyl Anthranilate
Butyl Butyrate
Butyl Cinnamic Aldehyde Crude
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Butyl Formate
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Cedrol Pure
C-10 Formate
C-12 Formate
Cinnamyl Acetate
Cinnamyl Butyrate
Cinnamyl Formate
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Cinnamyl Valerate
Citral C. P. Extra Felton
Citral Prime
Citronellal
Citronellol Acetate
Citronellol Butyrate
Citronellol Formate

Di Methyl Anthranilate

Esteron
Ethyl Anthranilate
Ethyl Cinnamate
Ethyl Iso Butyrate
Ethyl Oxy Hydrate
Ethyl Pelargonate
Ethyl Propionate
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Eugenol

Gamma-Undecalacton C. P.
Geraniol Absolute Extra Felton
Geraniol Pure Absolute
Geraniol Iso Butyrate
Geraniol From Palmarosa
Geraniol For Soaps
Geranyl Acetate Pure
Geranyl Butyrate
Geranyl Formate
Geranyl Propionate
Gerol
Guaiacol Acetate Pure

Iso Amyl Ketone
Iso Butyl Acetate
Iso Butyl Benzoate
Iso Butyl Cinnamate
Iso Butyl Phenyl Acetate
Iso Butyl Salicylate
Iso Butyl Ketone
Iso Eugenol Extra
Iso Eugenol Pure

Jasmin Aldehyde

Linalool Pure
Linalyl Acetate Pure
Linalyl Formate
Linalyl Valerate
Methyl Acetophenone Pure
Methyl Eugenol
Methyl Iso Eugenol Pure
Methyl Para Cresol

Nerol Entire
Nerol Pure

Octyl Butyrate
Octyl Iso Butyrate
Oenanthic Ether Extra Felton

Para Cresol Acetate
Para Cresol Formate
Para Cresol Phenyl Acetate
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Phenyl Ethyl Acetate
Phenyl Ethyl Butyrate
Phenyl Ethyl Cinnamate
Phenyl Ethyl Formate
Phenyl Ethyl Phenyl Acetate
Phenyl Ethyl Propionate
Phenyl Ethyl Salicylate
Phenyl Ethyl Valerate
Phenyl Propyl Acetate
Phenyl Propyl Iso Butyrate
Propyl Acetate
Propyl Butyrate
Propyl Cinnamate
Propyl Propionate
Propyl Valerate

Rhodinol Acetate
Rhodinol Butyrate
Rhodinol Formate
Rhodinol Laevo Citronellol
Rhodinol Phenyl Acetate
Rhodinol Pure
Rum Ether

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Amyl Acetate H. T.
Amyl Butyrate Extra
Amyl Formate
Amyl Valerate

ETHYL ESTERS

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Ethyl Butyrate Extra Felton
Ethyl Butyrate Plain
Ethyl Formate Extra Felton
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Ginger
Grape Fruit
Juniper
Lavender
Lemon
Lemon California
Limes Distilled
Limes Expressed
Mace
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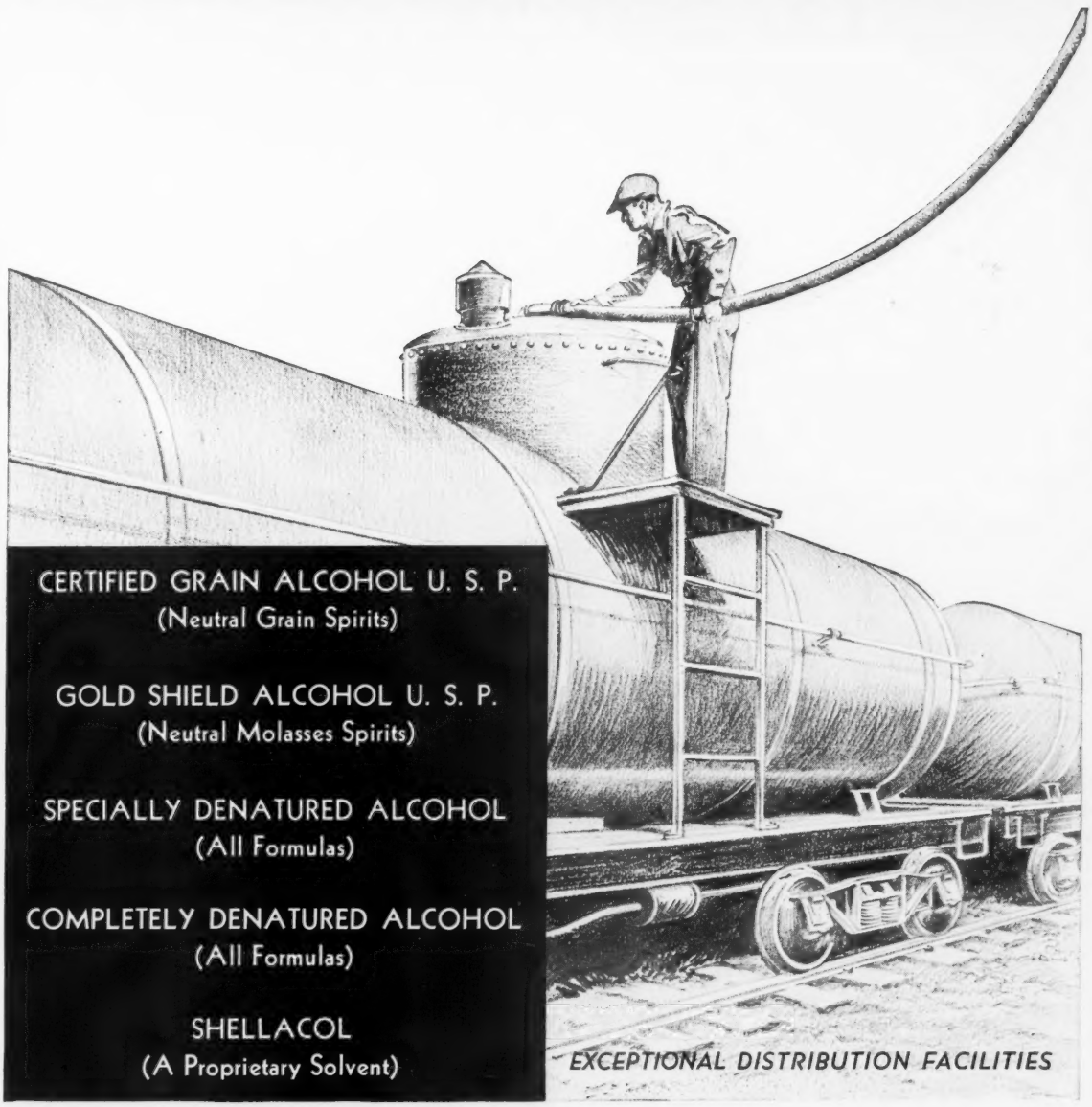
ROSSVILLE ALCOHOL

THE SPIRIT OF THE NATION



CERTIFIED GRAIN ALCOHOL U. S. P.
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SPECIALLY DENATURED ALCOHOL
(All Formulas)

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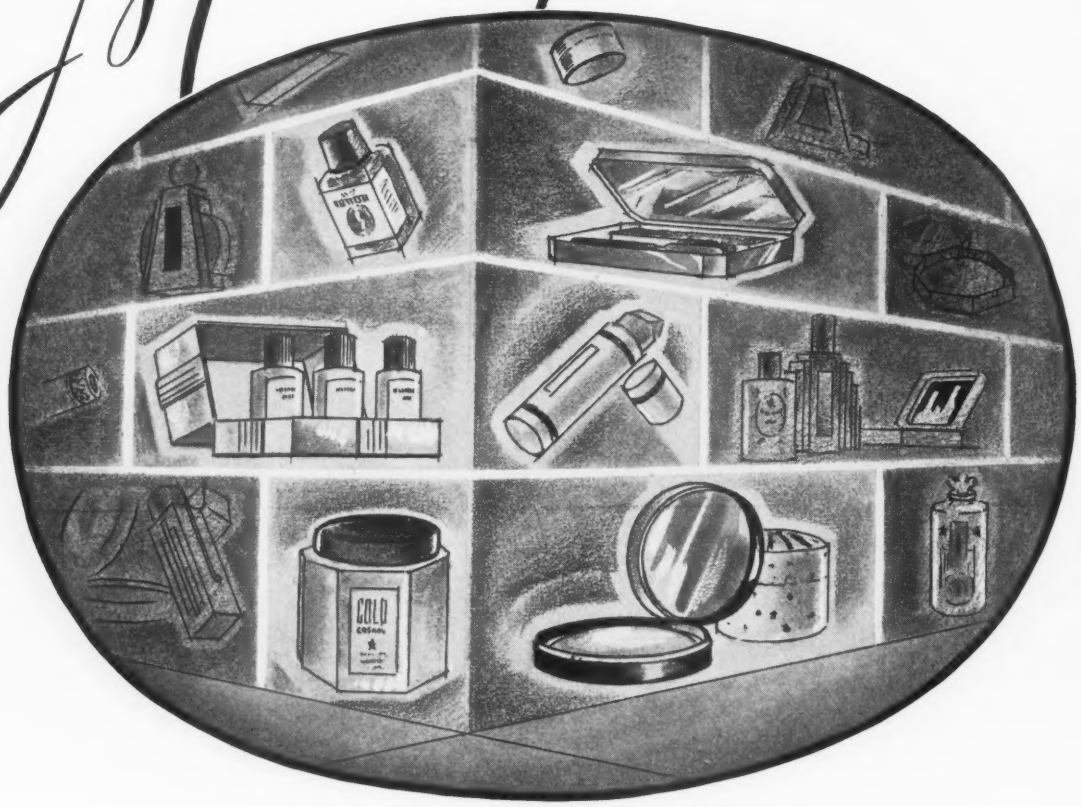
DISTILLERS OF FINE ALCOHOL

. . . . . TERRE HAUTE, INDIANA . . . . . .

BRANCH OFFICES AND WAREHOUSES IN ALL PRINCIPAL CITIES

A *Message* TO COSMETIC MANUFACTURERS



THE hue and cry for purer and better cosmetics grows. Price differences are being ruled out by law . . . and quality is the only real basis for determining sales. Mallinckrodt chemicals used in the making of your products assure you of the highest grade of purity—the best quality products. Why wait?

MALLINCKRODT COSMETIC CORNERSTONES

Mallinckrodt makes over 1500 chemicals, many of which are needed in the manufacture of cosmetics. A few of these chemicals are fundamental to the manufacture of certain products, and have been called by those who use them—MALLINCKRODT COSMETIC CORNERSTONES. These Mallinckrodt chemicals are especially adapted to meet the needs of the cosmetic manufacturer. They are produced from high-grade materials and rigidly tested for impurities. They give a better all-around selling and manufacturing performance.

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THESE ARE MALLINCKRODT COSMETIC CORNERSTONES . . .
CHEMICALS WHICH WILL GIVE YOU UNIFORMLY EXCELLENT PRODUCTS

ZINC STEARATE

For purer, smoother powders, creams, etc. Gritless. Fine, fluffy, white, moisture-proof. Specially processed. Makes powders cling better and more evenly. Superior in every way. Dust-proof packaging.

ALUMINUM CHLORIDE

For purer, better deodorants. Gives perfectly *clear solutions*. Saves time, labor, material, as no filtering is necessary.

BARIUM SULPHIDE

Assays over 90% pure. Pale yellow. More effective in both powder and cream depilatories.

SILVER NITRATE

Guaranteed at least 99.9% pure. Made from virgin silver and chemically pure Nitric Acid.

OTHER MALLINCKRODT COSMETIC CORNERSTONES

POTASSIUM SULPHITE	BORAX	HYDROGEN PEROXIDE
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Samples and descriptive folder sent when requested on letterhead of established concerns.

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of the nation's foremost pharmaceutical houses

PHARMACEUTICAL houses must be exacting in the selection of seals for their bottles. Often the slightest leakage of moisture, or even of air, spells ruin for their products. The cork actually may carry the responsibility of life or death.

"Keep tightly corked!" say the labels . . . and the nation's foremost pharmaceutical houses do all they can to help their customers obey that command. They seal their bottles with live, resilient Armstrong's Corks. Parke, Davis, Sharpe & Dohme, Wyeth & Bro., Eli Lilly and many others standardize on them.

And there are other advantages for the manufacturer who buys from Armstrong. Corks of the desired grade, in any quantity, are always ready for immediate delivery. No waiting. And they're carefully graded and inspected—you won't have to worry about production line hold-ups.

The Armstrong Line embraces all kinds of closures, including metal and molded caps, "Cel-O-Seal" caps and bands, and other types. Our laboratory tests will tell you exactly what closure is best suited to your product. Write for samples and ask for "A Buying Guide to Armstrong's Closures."

Armstrong Cork & Insulation Co., Closure Division, 913 Arch St., Lancaster, Pa.

A Warped Philosophy

THEODORE WEICKER, advertising director of E. R. Squibb & Sons, explains the philosophy behind the new Squibb institutional advertising campaign in the following words:

> "We are more than ever determined to oppose the evil of self-medication that has been fostered, over a period of years, with the American public. We believe the time has come when the truth about this evil and its causes should be more widely understood.
>
> "We want the public to know what preparations we make that may be safely used in the home, for minor domestic requirements, with the full approval of the physician. We want to give the public such facts as the medical profession holds should be given."

THUS does a major executive of one of the leading drug manufacturers announce his intention to spend his company's money to sell out the public and the drug manufacturing industry to the medical profession. He will spend his company's money to sell the public the idea that it should trust each and every physician implicitly, rather than spending this same money to educate the public to the fact that reputable drugs manufacturers are mainly responsible for the advances in therapeutics, and for the greater part of the knowledge of therapeutics which the average physician possesses.

IF THIS be idealism, Mr. Weicker is woefully misled. For instead of guiding the public in the proper direction, he will, in fact, be urging the average citizen to place his trust in a profession of which far too many members are either incompetent, or selfish to the point that they seek to victimize people in misery. Further than this, Mr. Weicker, comfortably situated in a large city, joins organized medicine in showing no consideration for those who are situated either economically or geographically so that they are inaccessible to the services of a physician.

IF, HOWEVER, we thought that this new campaign was designed merely to promote the business of Squibb by cashing in on a state of mind created by the publication of "100,000,000 Guinea Pigs" and by the unfair campaign of those interested in the Tugwell Bills, then we would be tempted to treat the subject from a different angle.

The Cosmetic Tax

That inspectors of the Internal Revenue Department have questioned the right of cosmetic manufacturers to set up manufacturing subsidiaries tax as a means of reducing the amount of tax paid has been anticipated. That they would immediately declare the method invalid and assess the additional amount of taxes against these manufacturers might also have been anticipated. But the fact that the inspectors are of this frame of mind does not settle the matter; this is for the courts, and until a decision is handed down, such assessments will continue and must be paid if the manufacturers wish to avoid payment of penalties and interest.

We never did believe that the method in which the cosmetic excise tax was levied is a sound or just method. In the first place the tax was levied as a percentage of the price at which the manufacturer sold his goods. If he sold them to a wholesaler, the tax was one amount; if he sold the same goods to a retailer, it was a greater amount. But if the manufacturer bought the goods from a private brand manufacturer, the tax was paid on a still lesser amount. The amount of tax also varies on the same goods in accordance with the volume bought if volume discounts are granted by the manufacturer.

It is certainly unjust, in our opinion, to penalize a manufacturer if he is so conscientious as to manufacture his own goods. Why should such a manufacturer be forced to pay a tax on the amount of money that he spends on selling, advertising, overhead, etc., when the one who merely buys the goods from a private brand manufacturer is exempted from such taxation.

●

Cooperation Essential

Cooperation among the various factors in the industry is essential if this industry is to have a just and proper revision of the Federal Food and Drugs Act during the coming session of Congress. Many leaders of the industry are working toward the end that the industry agree on certain basic ideas that will be acceptable to the industry as a whole in any proposed new bill. Such a move is vital to the industry since otherwise the industry will be divided in the fight which is bound to occur shortly after the new Congress convenes.

It will be recalled that the industry did not make any real progress in the fight against the obnoxious Tugwell Bill until the industry agreed to cooperate through the National Drug Trade Conference and drafted a bill which indicated plainly that the industry was agreeable to a reasonable and just bill which represented real progress in this sort of legislation.

If the industry is to be divided against itself during the coming session of Congress, legislators will probably be of the mind that the industry is unalterably opposed to any progress. Under such conditions Congress is apt to pass a bill which will be extremely detrimental to the industry as well as to the public. The industry can prevent the passage of such a bill if it will show the legislators how they can correct the abuses complained of with full protection of both the public and the industry.

●

"Economy Packages"

Liggett, reports say, and perhaps Rexall too, are to have a full-fledged five and ten cent display. "Economy Packages" is the new name under which this department will be ushered in.

Economy for whom, say we. Certainly not economy for the manufacturers, and surely not for Liggett.

Can it be that the customer really comes first—even before profits? Or has the merchandising department figured out that if a customer has to come to the store five times to buy the contents of fifty cent package, then Liggett multiplies the chances of other sales or private brands five times. This must be the last word in turnover.

We Protest

We have been accused of all sorts of terrible things. We have been told that we do not want to see the retail druggist make a profit; that we do not like service wholesalers; that we would like to see manufacturers' specialties kicked around the retail market at all sorts of prices; that we believe that manufacturers should be allowed to grant all sorts of discounts as they chose.

We deny the allegations one and all. Let us state at the outset that we are interested primarily in the welfare and prosperity of the manufacturers. However, prosperous retailers, service wholesalers, restriction of predatory price-cutting, orderly discount schedules are certainly helpful to manufacturers with some restrictions.

We do not believe that manufacturers can afford, in their own interest, to allow distributors of one sort or another to dictate to them how they shall conduct their businesses. Every manufacturer has the right to establish his own policies and he shall prosper or not in accordance with the wisdom of these policies. Wholesalers and retailers alike have the same right.

●

"Advancing Therapy"

With this issue we start still another regular monthly feature under the title of "Advancing Therapy." In this department we shall give the latest discoveries on the use of drugs and medicines reported in the medical journals of the world. In addition we will give those discoveries which might lead to a new method of therapeutics for any disease. We shall transfer to this department the material which we formerly published under the title of "New Medicines Abroad," so that in the future all of this important information will be available in one place for quick and easy reading.

NEW AND NON-OFFICIAL

The Drug Act

While attempts are being made to obtain a united front within the industry regarding federal food and drug legislation, there threatens to be a line of cleavage between those who are in favor of a reasonable new act, and those who might properly be termed "stand-patters."

It would greatly clarify the situation if all manufacturing interests could agree on points which would be acceptable to the industry if a new law is to be enacted. However, it is said that those most strongly opposing any change in the law, or at the best proposing mild revision of the present act, have not learned a thing from their experiences of last Winter.

These manufacturing interests, it is said, still have the taste of victory in their mouths as the result of the defeat of the legislation introduced in the last Congress. These people are said to be of the haughty opinion that they lick almost any bill which is unsatisfactory to them. Last Winter these same people were badly frightened, and they need to be frightened again if the industry is to present any united cooperative spirit during the coming session of Congress. At the present time, however, it does not appear possible to frighten them, and they might not be frightened to any extent until they find the ground cut from under them by cooperation between the more progressive branches of the industry and the government.

Drug Conference Action

While the National Drug Trade Conference will doubtless attempt to arrive at some form of agreement on the subject, it should be remembered, that this body must have a unanimous vote to act. It is likely that the stand-patters will veto any proposal by the progressive elements of the industry, and it seems certain that these progressive elements will veto any attempts to have the industry go before Congress in a reactionary role.

The progressive elements of the industry are in a state of mind which recognizes that a change in the legislation is necessary and is coming. They believe that by agreeing on a definite program, such legislation can be arrived at which would seriously curtail the activities *only* of those manufacturers whose activities should be curtailed for the good of the industry as well as of the public. These elements have no desire unduly to restrict the marketing of proprietary remedies or in any way to strike at the practice of self-medication, but they do believe that the present law is improper in many important respects.

They also believe that the public temper is such that a new law is being demanded by a sufficient number of people to make the legislators see the wisdom of being in favor of such legislation. These enlightened people foresee that constant opposition without any constructive suggestions will ultimately result in the preparation and passage of a law about which the industry will have very little, if anything to say.

New Bill Certain

That a new bill will be introduced is certain since Senator Copeland has stated that he will write and introduce such a bill if reelected, and there is no doubt as to his reelection. Further than this, Senator Stephens from Mississippi has been defeated, and it appears that Senator Copeland will be named Chairman of the Committee on Commerce in his place. This means that Senator Copeland will be chairman of the committee which will be charged with reporting the bill to the committee rather than just a member of the committee as he was during the last session of Congress. If this takes place it will mean that the Senator-Medico will have considerably more influence in the matter of food and drug legislation.

That the subject is very much on the minds of those in the industry is evident on all sides. Only recently at the convention of the United Medicine Manufacturers' of America in New York, the Proprietary Association turned three of its big guns loose to address the members. Lee Bristol, Frank Blair and Edward H. Gardner, Executive Secretary of the Proprietary Association Advisory Committee on Advertising, spoke to the members on various phases of the situation. Mr. Gardner, of course, confined his address to the work of his committee and to the problem of advertising control. But Lee Bristol and Frank Blair covered the entire subject of the industry, the government, the temper of the people, and many other pertinent phases.

●

Hill-billy Jury

Recently we heard of a case of false labeling tried somewhere in the vicinity of Memphis, Tenn. The product against which the Food and Drug Administration was acting was some sort of a remedy with quite liberal claims extending into the field of such diseases as tuberculosis, we are told. The jury is said to have been composed of twelve hill-billies. The manufacturer, we are informed, brought in as witnesses many more hill-billies who told how the medicine in question had cured them. The decision was for the defense. Wonder what the Administration can do about that one!

●

Politicians and Drugs

We liked Lee Bristol's reference to politicians when he spoke at the U.M.M.A. meeting. Mr. Bristol's thought was to the effect that politicians make all sorts of promises before election and fail to keep them. Still these same people make the laws by which drug manufacturers are forced to live up to every statement which they make regarding their products!

●

Babies in Bottles

Now that the male sex hormone has been isolated with the promise of a sure-fire cure for sterility, it would seem that the market is wide open for the male edition of "Lydia Pinkham's."

●

Cleaning Up On Teeth

Dr. West's tooth paste now lays claim to being one of the three leading brands. With Dr. Lyon's leading in the tooth powder field, it would appear as though the medicos do pretty well by themselves in the dentifrice market.

Now please don't write and tell us that there are no such people.

●

Sunshine in Creams

Now that Barbara Gould has developed a cream "irradiated with ultra-violet rays" that "gives you the beauty benefits of Sunshine While You Sleep . . . without tanning your skin," Cannes, Miami, Bermuda, Long Beach (Calif.) and Atlantic City, had better look to their laurels.

●

The Chicagoan

"Marie, are you sure you served cocoa and not Ovaltine?"

THE U. M. M. A. MEETING

J. MINOR EWING

Proposed Federal Food and Drug Legislation receives consideration from many trade leaders as the United Medicine Manufacturers of America meet in annual session. J. Minor Ewing continues as President.

J. Minor Ewing, president of the United Medicine Manufacturers of America, in his address before the annual convention of the association held at the Waldorf Astoria Hotel in New York on October 11 and 12, asked that a central bureau be established where manufacturers can get information regarding labeling and advertising and also to police the industry.

"It is impossible for our Association or any other association to make this Industry what it really should be without the co-operation and efforts of every individual member of the Industry," said Mr. Ewing. "Many of the discrepancies in labels, literature and advertising are often made by manufacturers innocently. This is because their viewpoints have possibly been given them by their medical advisers, not realizing that there are certain legal terms or may I say qualifications.

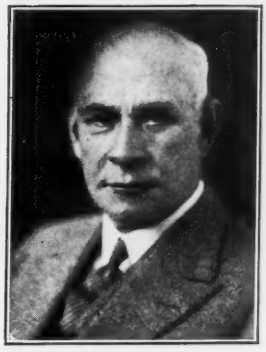
"I believe that it is very necessary to establish a central bureau where manufacturers may get information. This bureau would not only give educational information but would also police the Industry so that when any manufacturer is putting a new product on the market, he can first get information from this central bureau so he will know exactly how qualifications must be used before spending money for expensive printing or advertising. I say this in all sincerity as I know a great many of the manufacturers would like to know and have further information, as I know in my own case when I first started in business a number of years ago, I listened to my medical advisers and followed their suggestions without any qualifying terms. You must remember a medical man does not know the legal phases and pays little attention to them.

"Another important situation is the advertising agency. During a period when your business might be slack, your agency will bring you copy which he feels should produce greater business because it probably secured business for someone else five years before. When an agency brings you copy you must remember that at all times you should be ready to blue pencil any copy the agency may bring you and be sure that all qualifying terms are added to that copy."

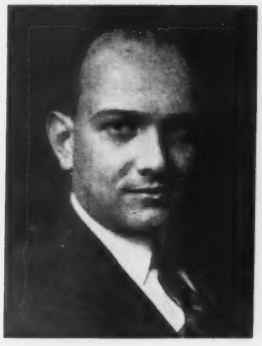
At the opening session on October 11 Percy C. Magnus presided. After the reception of delegates, President Ewing's address was first on the program. Mr. Ewing called for amendment of the present Food and Drugs Act rather than an entire new act. Said Mr. Ewing:

"It is my opinion that if changes are to be made to the present Food and Drugs Act, they should be in the form of amendments. An example of this—if the people of the United States are not wholly satisfied with the Constitution of the United States what is usually done? Do we immediately start to form a new Constitution? No, not that, but after considerable painstaking discussions with the brightest brains of the country, proper amendments are made to the Constitution to bring it up to date, and so I believe that with the present Food and Drugs Act, it, too, can be brought up to date with the proper amendments. However, much thought and effort must be given to forming an amendment so that it will be 100 per cent agreeable to the industry as well as the American people. It seems to me that this can be and should be done. We have been working under the present Food and Drugs Act for a good many years and are beginning to thoroughly understand the interpretation of it. Therefore, why destroy the thought and work which was started years ago by Dr. Wiley? I am sure that the original framers

LEE H. BRISTOL



FRANK A. BLAIR



P. C. MAGNUS

CLINTON ROBB

of the original Food and Drugs Act wanted the Food and Drug Department to be informative, to help the manufacturer, to give him information when he needed it, and this is one of the important phases to be included with any new legislation and is the only way the Industry will be benefited and the consumer better protected. The Food and Drug Department and the Industry must work together, and by doing this, more will be accomplished and it will bring about a better government and a clearer understanding."

Lee H. Bristol addressed the association on many topics, mainly covering the subjects of advertising control and food and drug legislation. Mr. Bristol in a very frank extemporaneous talk, stated that the further he had gotten into the matter of advertising of drug products, the more he thought that something should be done to control the recalitrants in the industry who are placing the entire industry in an improper light. None of us, said Mr. Bristol, want to be a party to holding out false hopes to people who are suffering as a means of making money. Mr. Bristol told of some of his experiences in conferences with the officials of the Food and Drug Administration on the subject of the Tugwell Bill.

At the afternoon session, Percy C. Magnus spoke on "Coordination between the Various Associations in the Industry." Citing the various dangers which are now facing business as the results of the trend in national affairs, and naming the large number of associations in the drug industry, Mr. Magnus said:

"If it is true that the individual members of an industry should coordinate their efforts, so is it likewise true that the different associations should coordinate and pull together to carry out a common program. But associations take on the character of the individuals who conduct them. They do not play together in team work.

"And so in our associations we must join in a common program. We must on numerous occasions submerge the identity of each individual association. We must pay less attention to saying "I did it" and pay more attention to getting the job done. Do you think for a moment that the Tugwell Bill is dead? Do you believe that the government is going to retract from its efforts to more adequately control, not only the production, but also the distribution—and particularly the advertising?

"These are days when we must leave our desks to sit at the conference table. We must no longer be concerned with who is the President, Vice-President, the Secretary and other officers of individual trade associations. We must stop having little firecrackers go off one at a time, and join our efforts in one great bomb. We have got to unite on common programs. We have got to correlate our efforts."

Clinton Robb, consulting counsel of the association, stated that the industry's problem was to oppose the efforts of a persistent effort which seems to have for its purpose and object the practical denial of the right to practice or exercise of self-medication through the gradual withdrawal from the market of medicinal preparations intended for self-use.

Mr. Robb stated that a few manufacturers are providing practically all the ammunition that has or will be hurled against the industry in the campaign for a new Food and Drugs Act.

Resolutions passed by the association are:

Whereas, it has been reported that legislation affecting the industry is pending for the next session of Congress; be it

Resolved: That the efforts of the association for the self-preservation of the industry, as conducted last year, shall be continued for the coming year; and

Whereas, the association recognizes the wholesale and retail druggist as our distributors to our consumers; be it

Resolved: That we give every encouragement to all efforts looking to the stabilization of such prices as will afford these distributors a legitimate recompense for their serviecs; and

Whereas, it is recognized by this association that there is need of a higher standard of advertising in all industries; be it

Resolved: That this association shall co-operate to the fullest extent with the Proprietary Association and other organizations who are working toward the raising of these standards.

J. Minor Ewing was reelected President of the association. Other officers elected are: Vice-presidents, Charles L. Huisking, R. Sidney Herman, of Dr. J. H. McLean Medicine Co., St. Louis, D. A. Lundy, of Home Drug Co., Minneapolis; Jim Bourland, of Jim Bourland Co., Houston; F. A. Geue of Research Laboratories, Portland, Ore.; Secretary, J. B. Van Dyke, of Van Dyke Chemical Co., Philadelphia; Treasurer, William Holloway, of Johnston-Holloway Co., Philadelphia.

ANEMIA

A dread disease with a high mortality rate has been controllable for some years. In this control, drug manufacturers have played a most prominent part.

DR. GEORGE R. MINOT

Previous to 1926, when the results of Minot's work with liver in the treatment of pernicious anemia were first made public, that dread disease was the cause of what has been estimated as high as one death in every one hundred. In the intervening time, an increasing number of effective preparations for the treatment of this disease have been perfected by the manufacturers in this industry, so that once diagnosed, the supply of the deficiency which causes pernicious anemia has become a comparatively simple matter. As a result, the so-called secondary anemias may almost be said to have become the outstanding problem, due to the fact that they operate more insidiously, receive less attention and lead to general debility and loss of resistance to infection. Hence there seems to be a returning tendency not to emphasize the value of liver therapy, but to re-emphasize the value of various types of supplementary therapy, formerly widely used but somewhat forgotten in the excitement following the marvelous results obtained from liver therapy.

THOMAS ADDISON

As is generally known, anemia is a disease of the red blood cells and the hemoglobin. It may be due to excessive loss of blood, defective blood formation or increased blood destruction. It falls into two general classes—pernicious anemia, which previous to 1926 almost without exception resulted in death, and the secondary anemias, which result in weakness and lowered resistance to infective agents of all types.

Pernicious anemia was first described by Thomas Addison in 1849. In 1925, George H. Whipple announced that he and his co-workers had found liver valuable in treating dogs with anemia due to hemorrhages. This inspired George R. Minot, who had been studying pernicious anemia for many years, to try liver feeding on his patients, with the startling results which have already been noted. Not long after, E. J. Cohn successfully prepared the first liver extract thus blazing the trail for other research chemists in the preparation of uniform, standardized extracts for oral feeding or for intramuscular or intravenous injection. Another outstanding contribution was made by Castle who found that beef, acted on by the normal stomach, and then fed to pernicious anemia sufferers, gave the same results as liver. This led to the testing of the stomach walls of dogs and pigs, and the discovery that the active principle was contained there, and could be

DR. GEORGE H. WHIPPLE

(*Continued on page 490*)

WHAT DO YOU MEAN, SKIN ABSORPTION?

By CARL SCHEFFEL, PhB., M. D.*

Skin absorption may mean absorption through the skin, or it may mean absorption by the skin. Applying a product to the skin and finding it in the urine means that it has been absorped through the skin. What about those products which are merely absorbed into the skin but do not pass through? Dr. Scheffel calls for definite terms.

Superficiality in scientific investigation and interpretation is the chief curse which holds back true progress in research. This article was primarily inspired by one embracing a part of the same title, as appearing in THE DRUG AND COSMETIC INDUSTRY in September, 1934.

First of all, it is highly important to recognize and appreciate that absorption *through* the skin and absorption *by* the skin are two entirely different phenomena which must not be confused; but which are evidently confused—even by those undertaking to write about so important a subject.

During absorption *through* the skin that tissue merely acts as a medium through which some substance passes—usually into deeper tissues. In absorption *by* the skin that tissue becomes much more than a passive medium through which a substance simply passes. During absorption *by* the skin that tissue performs the highly selective funtion of appropriating all or part of the substance applied to it. Moreover, such absorption may be either beneficial or detrimental to the skin.

During absorption *through* the skin, that tissue is comparable to a funnel through which something passes. But during absorption *by* the skin that tissue acts like a sponge and really holds what it absorbs. To appreciate, recognize and remember these differences is highly important in determining the action of drugs, heat, electricity, light and other rays upon the living organism.

Whenever it is desired to determine the possible effect of a substance upon tissues or organs beneath the skin or in the interior of the body as the result of substances applied to the skin, then we are dealing with absorption *through* the skin which in many instances is demonstrable by recovering the substances in their original or altered form in the circulating blood, the urine, the saliva, or from the secretions of the mucous membrancs of the nose, throat, vagina or rectum.

However, when it is desired to determine the effects of a substance on the skin as a tissue, and particularly its effect in the deeper layers of the skin, then we are dealing with absorption *by* the skin which can only be properly demonstrated by means of biopsy, or cutting off a portion of live skin and examining that with instruments of precision.

The main reason for going into such detail concerning absorption *through* the skin and *by* the skin is to prevent confusion and misunderstanding in the minds of those seriously interested in these phenomena. It is a fact that many, many substances applied to the skin under varying conditions pass through that tissue much like water does through a funnel, leaving no other effect in the skin behind than mere evidence of contact.

Whenever action is desired in the tissues beneath the skin, as from methyl salicylate or chloroform in com-

*Medical Director, Hart Drug Corporation, Miami, Florida

bating rheumatic pains, mercury for syphilitic affections, olive oil (for mal nutrition) under certain circumstances, these substances applied to the skin pass through without demonstrably affecting it. In fact, the less a substance intended for absorption *through* the skin influences that tissue, the better will be its action in those tissues in which it is really wanted. Conversely, whenever action is desired from a substance within the skin itself, then the less that substance passes through the skin, the better will its action be within the skin where it is wanted.

From the foregoing it is obvious that both to the drug and cosmetic manufacturer this subject matter and its proper differentiation is of the utmost practical importance, although possibly from different standpoints. The drug manufacturer is directly concerned with substances which act therapeutically either within the several layers of the skin, or only in certain of them, as a means of directly influencing the skin. For that purpose it is of value to him that none of these substances shall pass through the skin and perhaps adversely influence remote tissues where their action is not desired. Or, the drug manufacturer may also be interested in substances which when applied to the skin exert their effects in other tissues. In that case he is intensely concerned that none of the substances shall be retained in the skin either to adversely affect that tissue or to make less substance available in those tissues in which its therapeutic action is desired.

For the manufacturer of cosmetics (using the latter term in a strict sense) absorption *by* the skin as well as *through* the skin of any substance incorporated in his preparations may under certain circumstances be fraught with definite dangers. If a cosmetic substance is absorbed *by* the skin it should necessarily be of a nature which does not injure the tissue in either structure or function. If a cosmetic substance be absorbed *through* the skin, such as lead or arsenic for instance, then it may become a source of danger to the entire body. For the cosmetician, therefore, it may be of the utmost importance to study substances which prevent as well as promote skin absorption.

Another matter of some importance in this connection is to determine just what constitutes skin absorption. When the tissues and cells of the skin itself absorb some substances, such as a dye for instance, so that the substance may be recovered from within the tissue cells by appropriate means, then we are dealing with a purely chemical phenomenon which can be called skin absorption with scientific accuracy. However, when a substance is rubbed into the pores, sweat glands, hair follicles and other normal openings of the skin, and when subsequent examination discloses that the cells of which the skin is composed have failed to take up that substance, then we are dealing with a purely physical phenomenon which ought not to be called skin absorption in the strict sense of the usually accepted meaning of that term.

It is true that substances really absorbed by the skin as well as those forced into the natural openings and depressions of the skin may pass through that tissue and exert their effect elsewhere. It is also true that certain substances, such as salicylic acid for instance, may be partly absorbed by the skin and there exert its keratolytic action, and partly pass through the skin to exert the balance of its anti-rheumatic action in deeper muscular tissues.

For the purposes of farsightedness, and particularly from the standpoint of possible drug and cosmetic legislation, it may be pertinent to standardize NOW what is really meant by the term "skin absorption."

Adulteration and Misbranding of Russian Mineral Oil

By S. Schwabacher

A recent issue of "Notices of Judgment under the Food and Drugs Act" contained two interesting decisions of the Secretary of Agriculture with regard to adulteration and misbranding of Russian Oil.

The first case involved an oil represented as high-grade Russian Mineral Oil, which in fact was a low-grade oil, containing considerable carbonizable substances. The libel alleged misbranding in that the name "Mineral Oil" was false and misleading, as it was intended to create the impression that the oil was Liquid Petrolatum U.S.P., whereas it was not. Misbranding was further alleged because the statements "This Russian Mineral Oil" * * * is of the best grade," and "This Mineral Oil is guaranteed to meet the highest standard of Medicinal Products," were false and misleading, since the oil was not of the best grade, not meeting the highest standard.

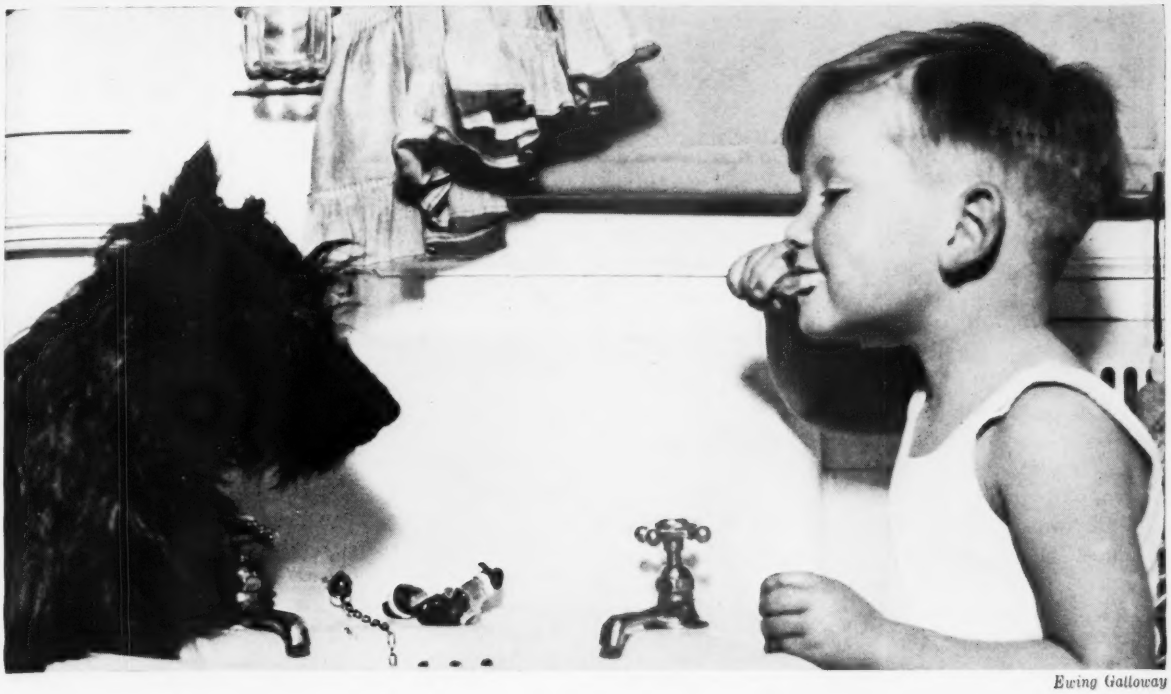
The second case involved a light oil represented as heavy mineral oil. It was also falsely labeled as to the manufacturer's name and the state in which it was made. The libel alleged adulteration as the purity of the oil fell below the professed standard and quality under which it was sold, namely, "Russian Mineral Oil Heavy."

These judgments call attention to practices of certain firms, labeling mineral oils of domestic origin as "Russian Imported" and describing grades of low viscosity and quality as of high viscosity and quality, containing objectionable amounts of carbonizable substances, and therefore not meeting U S.P. requirements.

The N. Y. State Board of Pharmacy recently warned against so-called "bargains" in drug products, which are frequently dangerous and capable of injuring the health. It mentioned particularly the cut-rate mineral oils of very low viscosity offered as equal to heavy oils sold by reputable firms. Such low viscosity oils, the Board stated, have not enough body to be of any benefit and are immediately eliminated without providing laxative effects.

In this connection the attitude of the Food and Drug Administration as to the origin of "Russian Oils" is of interest. They state that "their investigations have shown that" the public generally understands the term "Russian" as applied to mineral oils as having a geographic significance. Under these circumstances, the use of the term "Russian" in connection with mineral oils coming from wells elsewhere than in Russia, or in territory that was formerly included in Russia, would be misleading and therefore violative of the Federal Food and Drugs Act.

From this it appears that the term "Russian Oil" should be applied exclusively to oils made from RUSSIAN crude and that the designation of other white oils as "Russian Oil" would be misleading and therefore violate the law.



Ewing Galloway

TOOTH POWDER

By Francis Chilson

The amazing growth in the sales of tooth powder within recent months propounds the question: will tooth powder supplant paste as the most important item among dentifrices?

Tooth powders are back and apparently have become the sales touchstone of the dentifrice field. At least two firms whose names had all but expired as factors in the dentifrice market are again among the leaders. In one case, at least, a paste manufacturer whose sales had been stripped away from him in the fiercely competitive war of the past five years has made a vigorous comeback with powder. While the big fellows were engaged in a merciless scrimmage over a product which is slowly losing ground, this firm made a touchdown with powder. But the big firms cannot be accused of blindness; they, too, know which way the wind is blowing and most of them have or are adding powder to their lines. If the popularity of powder continues to increase we shall soon be witnessing a most sanguinary fight to dominate the new market. As the Irishman said when he took off his coat, it isn't a private fight any more; it's a free for all.

What is behind this sudden recrudescence of powder? Is it a cyclical movement? Was it caused by the depression—born belief that powder is more economical than paste? Has the dentist's insistence on the use of powder as a cleansing agent helped the movement to gain momentum? Is powder really a better dentifrice? All these questions are being asked—and answered in various ways according to individual interests. Some observers contend that paste manufacturers laid the foundation for the prevailing belief that powders are better cleansers than pastes by being over-anxious to make their pastes soft and creamy and pleasant to use and in so doing impaired cleansing power. Whatever may be the justice of this observation, it is a matter of fact that the glycerite of starch, glycerin, water and gums which are used in making tooth pastes contribute nothing to their cleansing efficiency. And when one considers that these excipients and binders constitute more than half the ingredients of pastes, considerable force is lent to the observation.

In making tooth powder we are concerned first of all

with cleansing or polishing, all other considerations are subordinated to this. In order to simplify our inquiry into the composition of tooth powder it may be desirable to adopt a standard terminology. We shall use the term detergent agent to describe only actual detergents such as soap and alkalis but oxidizing agents such as sodium perborate, magnesium peroxide etc.; and also those chemicals which act upon the mucin such as sodium chloride, sodium bicarbonate, borax, potassium chlorate and tartrate, etc.

Using such a method of description, the tooth powder formula may be said to consist of polishing agents, detergent agents, flavors and antiseptics. These properties are arranged in order of their importance and we shall dispose of the least important first.

It is universally agreed that no amount of antiseptic in a dentifrice can produce sterility in the mouth or around the teeth. The chief value of an antiseptic in a tooth powder lies in the fact that it will, to some extent protect the powder in the container from bacterial contamination, and to a lesser extent, an antiseptic will sterilize the tooth brush. Our private opinion is that an antiseptic in a tooth powder (or any other dentifrice) is chiefly valuable as an advertising feature. The teeth are so irregularly shaped that no amount of brushing will get at all the minute interstices in them, so that the probability of antiseptic action in the few seconds that the dentifrice is on the teeth is exceedingly remote. Moreover, even if antiseptic action could be secured, its effectiveness must certainly be impaired by dilution through the constant flow of saliva and the alkalinity of the polishing agent. The antiseptics employed, however, include: thymol, benzoic acid, salicylic acid, boric acid, salol, phenol, etc. The list may include many of the essential oils which are used for flavoring the product, plus any other antiseptic which is not irritating to the mucus membranes and does not develop an offensive odor in contact with saliva.

The flavoring agent must include first of all a sweetener, such as powdered sugar, milk sugar or saccharine. To the sweetener is added a combination of true flavoring materials which will cover the earthy taste possessed by some polishing agents and the taste of the soap or other detergents, and which will leave a stimulating, pleasant after-taste in the mouth. The flavoring materials include: the oils of wintergreen, spearmint, peppermint, cassia, clove, anise, eucalyptus, lemon, bergamot, orange, lavender and rose. Wintergreen, peppermint and spearmint are the most popular; the other oils are used mainly for rounding out their flavor. Peppermint for example is too sharp to be used alone; it is usually toned down with anise, cinnamon, clove, or wintergreen. The latter seems to be very popular as a flavor and is often used straight. Thymol, menthol and anethol are frequently employed in compounding flavors. Anethol is used in place of the straight anise oil, menthol instead of peppermint, and while thymol aids in giving a certain character to the flavor, it is mainly used for its antiseptic qualities. Flavoring compounds may be obtained ready to use or they may be made from straight materials by those who are expert in such matters. A typical, popular type of flavor is as follows:

Oil of wintergreen	71.0%
Oil of peppermint	11. "
Oil of spearmint	9. "
Oil of anise	9. "

In such a formula wintergreen will predominate; peppermint is added to impart pungency and tang, while the spearmint and anise are added because they contribute to a pleasing after taste. Peppermint, spearmint and wintergreen are very useful for covering the taste of soap and other ingredients which may not have a pleasing taste. They are very pleasant and very lasting.

Under detergents the most important is of course powdered neutral white soap. There are a number of powdered soaps all of which are useful as detergents but many may not be used because of their taste. Taste and lack of odor should be given first consideration in buying powdered soap. Most chemists are agreed that soap is a good cleanser and especially for cleaning out the interstices of the teeth where the brush does not reach and that it aids the action of the polishing agent. It also has a psychological value from a consumer standpoint because most people like a powder which is slightly foamy. Evidently they feel reassured, when they see the foam, that the powder is doing a good cleansing job. Sodium lauryl sulfonate is an excellent detergent; it is foamy and some chemists contend that it acts upon mucin. However, it is much more expensive than soap. Borax is used to a limited extent as a detergent but it has no advantage over the former two materials.

Sodium chloride, sodium bicarbonate and sodium sesqui carbonate are utilized because of their action upon mucin. We cannot expatiate upon this because there is still no agreement among chemists as to whether mucin is dissolved, precipitated or merely rubbed away. The problem of dissolving mucoid deposits without injury to the teeth has not been solved.

The perborates and peroxides such as sodium and magnesium perborate and magnesium or zinc peroxide are used in oxygenated tooth powders and are said to be very useful in cavitation or dental caries, pyorrhea and also in bleaching the yellow deposit which forms on teeth from smoking. The perborates are favored most and are frequently used straight with a little perfume or color added.

Finally we come to the polishing agents of which the most generally employed is precipitated chalk. This is available in light and heavy grades, the light grade being favored most. Chalk is pure white, fluffy and non-gritty and it cleanses or polishes the teeth thoroughly without injuring enamel or exposed dentine. Magnesium carbonate and magnesia hydrate are used in making the so called milk of magnesia tooth powders. Colloidal kaolin or clay is never used alone because of

(*Continued on page 567*)

PLATE 1

PLATE 2

PLATE 3

PLATE 4

BLUEBERRY IN DIABETES

By N. Kenneth Edgars*

Blueberry leaf contains Neomyrtillin, a product claimed effective in treatment of diabetes. Is it possible that a change in diabetes therapy is at hand?

The use of the blueberry as a food and medicine is as old as history. Pliny mentions the use in his day of blueberries to dye garments purple. A sixteenth century historian (Dodoens-1578) records the interesting fact that the apothecaries made a medicine from blueberries called Rob, which was considered an excellent remedy for "heat ague" and "all evil inflammation of the blood." The fruit is highly approved as a food today, but its medicinal use has been forgotten.

The leaves of the same plant seem to have been used in the form of a tea by the peasants of the Austrian Tyrol for such ailments as diabetes or polyurea. In 1925 Wagner, working under the direction of Professor Durig (Vienna), investigated the therapeutic claims of these simple country folk and found them to be based on sound evidence. Extracts made from the dried leaf were tried out on depancretized dogs, administered by mouth, and surprisingly good results obtained. Two years later in this country, Wagner and Allen tested the extract clinically on human patients suffering from hyperglycemia (diabetes). Hospital records cited in their reports show excellent results. The findings were corroborated by many other nationally known investigators.

No research into the chemical nature of leaf and fruit constituents was published until 1934, when the present writer concluded his investigations. The glucoside Neomyrtillin was isolated and the empiric formula $C_{24}H_{36}O_{18}$ assigned to it.

The blueberry, or common huckleberry, grows usually without cultivation in swampy thickets throughout the entire continent. Although the genus Vaccinium comprises about one hundred twenty-five species of wide geographical distribution, only some twenty-five are indigenous to North America. Botanists divide these into "low bush" and "high bush" groups. The low bushes are well adapted for fruit collection. Large rakes of rounded, parallel wires are used to

PLATE 1
A twig of Vaccinium corymbosum in bloom. This species is quite closely related to V. Caesarense and is the most common shrub of the group growing in this section; focus 1 meter, exposure 7 seconds, 100 W. lamp.

PLATE 2
A branch of V. Caesarense about three weeks after the blossoms have fallen. Same bush as that shown in Plate 5. The leaves have grown but are not yet fully mature.

PLATE 3
The properly dried leaves of V. corymbosum, V. Caesarense and hybrids collected in August and stored in a warm, dark and dry storage chamber for three weeks. The color should approximate an olive green. In a normal season with a warm and dry atmosphere, these leaves will be ready for milling within a month. When once thoroughly dried, they may be easily milled even in damp weather; focus 1.1 meters, time 7 seconds, sunlight.

PLATE 4
Herbarium specimen of mature leaf of V. corymbosum, collected in August; upper surface brownish-olive to olive-green in shade, lower surface green; focus 1.1 meters, time 5 seconds, sunlight.

*New Era Pharmaceutical Laboratory, Tenafly, N. J.

scoop up the fruit into baskets. During the short three week season, many thousands of men are employed in collecting and transporting to the commercial centers.

Although no medicinal substance was found in the fruit, the very interesting anthocyanin dye myrtillin, a galactoside discovered by Willstatter in 1915, was estimated quantitatively and its formula $C_{22}H_{23}O_{12}Cl:-4H_2O$ confirmed by analysis. The constituents of the fruit are:

Water	85.23%
Solids (insoluble)	2.51 "
Sugars (as invert)	9.29 "
Myrtillin	0.59 "
Fruit acids	1.88 "
Proteins	0.50 "
	100.00%

Total ash 2.16%
Acid-insoluble ash 0.41%

Blueberry leaves are dried in kilns away from direct sunlight and reduced to powder in special low speed mills. Volatile solvents are used to remove waxes and chlorophyll before treatment with the other solvents used. A dried, acidified, methyl alcoholic extract is treated with boiling water and the filtrate precipitated with carefully normalized and buffered hydrate of soda, yielding a bulky precipitate of Neomyrtillin, which is filtered out and purified.

Moist leaves yield about 62% moisture in the drying process. Air dried leaves were found to consist of:

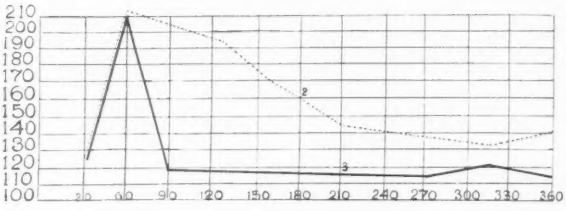
Moisture	8.58%
Tannin	8.83 "
Chlorophyll	3.42 "
Waxes	3.55 "
Gums	5.10 "
Carbohydrates	11.60 "
Neomyrtillin	2.05 "
Decomposition Prod	13.32 "
Crude Fibre	12.72 "
Marc	30.80 "
	100.00%

Total ash 3.52%
Acid-insoluble ash 0.29%

Purified Neomyrtillin is a dull brown powder with a slight aromatic odor resembling stale aloe and a mild astringent and sweet taste. The empiric formula is $C_{24}H_{36}O_{18}$. Exhaustive qualitative and quantitative tests have definitely placed it in the group of digalloyl methoxyl glucoses. The solubility in water and alcohol is slight when cold but readily soluble when warmed slightly, yielding deep, red-brown solutions which are laevorotatory, a_D6-0.7 (1:1000 H_2O). The solution is distinctly acid to methyl orange. When hydrolyzed with zymase, the compound breaks down into its component parts, among which is tri-hydroxy benzoic acid. Neomyrtillin closely resembles some of the artificial galloyl and methoxy glucoses of Fischer and yields 17% methoxy groups in the Zeisel Reaction. Insoluble compounds were obtained with a solution of Neomyrtillin and salts or oxides of lead and mercury and with most alkaloids. Its use as a universal alkaloidal precipitant is indicated here.

Two tests for identity were evolved in connection with the discovery of this new glucoside. One is a color reaction produced by iron chloride and ammonia, the colors produced changing from dark green to red-brown. The other test is based upon the formation of characteristically shaped microcrystals in the presence of iron oxide and sodium hydrate. The tests for purity include a modified heavy metals test and a test for free tannin in the presence of gallates, using the Lamotte Block Comparator to match the colors exactly. In this test the colors range from various shades of blue (tannin) to green (gallic acid). By this method the absence of free tannin in the sample can be ascertained colorimetrically.

In order to determine the blood sugar diminishing or hypoglycemic power of Neomyrtillin, a series of interesting pharmacological experiments were performed upon rabbits. These animals are used in blood sugar experimental work because they are easy to handle and are responsive.



Curve 2 shows effect of glucose on starved rabbits. Curve 3 shows effect of Neomyrtillin.

Artificial hyperglycemia (diabetes) was induced by the Banting method. This is a painless process in which the nerve center controlling the function of the pancreas is destroyed under anesthesia. The blood sugar level will remain high, usually over 200 mgm. per 100 cc., until some hypoglycemic substance like insulin or Neomyrtillin is introduced hypodermically or orally; in which case the level will fall to a little over 100.

Substances to be administered hypodermically were brought as near to neutrality as possible, then sterilized and injected subcutaneously into either subscapular region or fed orally through a catheter. After a short period of rest and assimilation, blood for analysis was withdrawn from the ear and investigated according to the method of Folin and Wu. In the appended graph, the blood sugar reading is given at the left, in milligrams for each 100 cc. of blood, and the time in minutes from left to right. Dotted curve number two represents the effect of feeding glucose hypodermically to starved rabbits. Solid line number three shows the effect upon the same rabbits after administering Neomyrtillin hypodermically.

THE N. W. D. A. MEETING

A record attendance of over 800 people crowded to overflowing the famous Greenbrier Hotel at White Sulphur Springs, W. Va., when the Annual Convention of the National Wholesale Druggists' Association moved in on October 1. The reasons for the enormous registration were not far to seek. First, business is better, and the future appears very bright. Second, the great number of developments during the past year regarding NRA Codes, price stabilization, etc., attracted many people who were anxious to obtain the latest information on these subjects. Third, liquor distillers have become associated with the wholesale drug trade since a year ago and they attended the convention in large numbers.

A. KIEFER MAYER
The New President

The question of the wholesale drug code was discussed by A. Kiefer Mayer, who as Chairman of the Board of Control during the past year has been most actively engaged in this work. In a spirited speech he told of the wholesalers who had appeared at the code hearings in Washington to attack the N.W.D.A. without any basis in fact. These wholesalers, whom Mr. Mayer termed "chisellers," made statements not based on facts or concrete information, but merely on hearsay and gossip, according to Mr. Mayer. The repeated attempts of the NRA officials, who knew nothing about the wholesale drug business, to force a forty hour week down the throats of the wholesalers was told by Mr. Mayer, who also related that the N.W.D.A., armed with facts, proved to the NRA that the wages of the member houses were actually two per cent over what they were in 1929.

Mr. Mayer said that the association is unwilling to back down on its refusal to accept a forty hour week and is prepared to go to the courts the minute the NRA tries to make any such provision. He told the membership, "If you do not want us to change, we will stay there till hell freezes over."

As part of the association's efforts during the past year to effect price stabilization, the association has decided to ask the Federal Trade Commission for a hearing on fair trade practices. This follows the charges which were made against the association at the NRA code hearing when independent wholesalers charged that collusion existed between the members of the N.W.D.A. and a number of manufacturers. This collusion tended to create a monopoly on the part of the members of the N.W.D.A. as distributors of the merchandise of these manufacturers. Following this hearing, a complaint is said to have been made to the Federal Trade Commission and for some months the Commission has been investigating the N.W.D.A. leading up to the probable filing of a charge against the association. It will be recalled that five years ago the association asked for a hearing on fair trade practices before the Commission. Action was deferred, and then it appeared unnecessary in light of the development of the NRA. Now, however, it seems that the Federal Trade Commission is still to be an important body in fair trade practices and so the association is repeating its request. In line with this request, George McCorkle, Director of Fair Trade Practice Conferences of the Federal Trade Commission, addressed the convention on the duties of the Commission and on the subject of fair trade practice conferences.

Dr. E. L. Newcomb, executive vice-president and secretary of the association, delivered a most exhaustive report on the activities of the association during the year. On the question of price stabilization, Dr. Newcomb said in part:

"We believe it is entirely within the right of a trade association to conduct scientific research, assemble, and distribute facts concerning costs, methods and channels of distribution, and urge a careful consideration of these facts on the part of manufacturers as a means of aiding them in determining what methods of distributing their products are economically sound and therefore most likely to protect the market for those products from demoralizing and predatory practices; provided that in so doing it keeps within the limitations prescribed by law.

"It is our understanding that under present law a trade association may not induce, offer inducements or use methods involving threats, or coercion or force in any attempts to compel manufacturers to adopt and follow any given policy or policies, even though scientific research had shown them to be economically sound, constructive and of a character to promote recovery

from the present depression and result in benefit to the public at large.

"In our conferences with manufacturers we have consistently stated that we do not request the manufacturer to restrict his distribution to any particular wholesaler, or group of wholesalers. We have emphasized the fact that we have no legal right to request or urge a manufacturer to refuse to sell to anyone and that we do not do so. We have consistently stated that the selection of a method for the distribution of his goods and the decision as to whom the manufacturer sells must be made by the manufacturer himself.

"We have no legal advice made available to manufacturers who have called upon us published information, maintained in our office, concerning drug distributors and the different organized groups in the retail, wholesale and manufacturing drug industry. The only list of wholesalers which the N.W.D.A. has ever prepared is its own list of members, which is published annually, and this is given free to any who ask for it.

"Many manufacturers have recently stated that for the last ten years, especially during the period of great prosperity, they sold indiscriminately to anyone who sent an order for merchandise without regard as to whether or not the merchandise would be handled in a manner which the manufacturer might consider detrimental to the value of his trade-marked name. It is generally recognized that indiscriminate selling has led to a use of trade-marked merchandise in a manner not only detrimental to the manufacturer, but to the drug industry and the public at large.

"Research facts relating to the problems of the drug industry compiled by well-known research workers connected with outstanding institutions such as the School of Business Research, Harvard University; School of Business, University of Minnesota; the Horton School of Finance, University of Pennsylvania, and the School of Business, Columbia University, much of which has been under the auspices and direction of either the N.W.D.A. or the Druggists' Research Bureau, indicate rather clearly that economically sound policies for the distribution of trade-marked merchandise involve a selection of distributors. The number and location of distributors needed depends on the nature and character of the merchandise, the volume of its sale, and other factors having a bearing on its distribution.

"Manufacturers are now studying the subject more intensely than ever before and endeavoring to arrive at what does constitute for their individual lines and products an economically sound number of distributors. Many of the outstanding manufacturers in the drug industry have always restricted their distribution, some not selling to any retailers direct, and others selling to only a limited number of wholesale drug houses, which gave them practically complete coverage at the lowest distributive cost to the industry.

"The New York office of the N.W.D.A. will continue in the future, as it has in the past, to do that which is within its legal right in aiding all producers and distributors in the drug industry to work out economically sound policies. Such work we believe is directly the mandate of President Roosevelt and an essential educational service which the association should render to the industry. Industry should govern itself within the limitations prescribed by law. Unless this work is continued there can be little hope for any recovery in the industry, increased employment or increased wages. The facts show that a very large percentage of distributors in the drug industry have been operating at a loss for a number of years, due, we believe, primarily to the effect of predatory price cutting and other evil practices. If these evils and predatory practices are not eliminated the industry as a whole will suffer irreparable loss, and the maintenance of the general public health of the country will be seriously jeopardized.

John T. Woodside, chairman of Committee on Manufacturers, spoke on the study on distribution which is now complete and ready for publication. This report, he said, is the first accurate, nationwide picture of the importance and account coverage of all service wholesalers and their place in the distribution scheme. Some of the information in this report is as follows:

(1) Volume:—The service wholesalers today do an annual business of about $300,000,000, a concentration of 63 per cent of the total wholesale drug volume in one single controllable unit of distribution.

(2) Salesmen contacts:—To handle their $300,000,000 volume, the service wholesalers employ 3,135 salesmen, or one for every 17.5 of the 55,000 independent retail druggists in the country. Of these, 2,166 are traveling salesmen—one man in the field for every 25.3 retailers.

(3) Coverage:—The service wholesalers give a 95 per cent coverage of the 55,000 independent retail druggists, with calls on 93 per cent of these outlets at least two times a month.

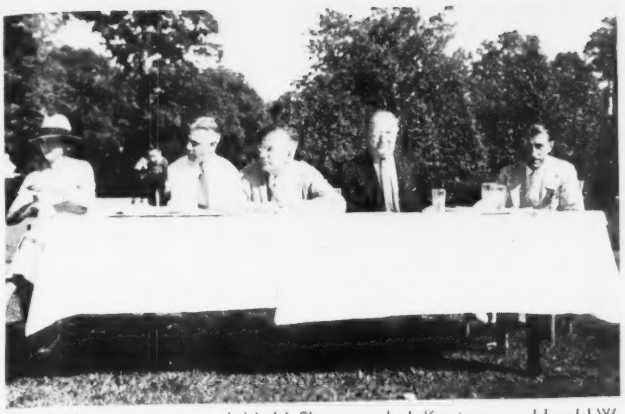
(4) Inventories:—At the beginning of business in 1933, the merchandise inventory for all 225 service wholesalers was $53,679,000. From this gigantic product reservoir, merchandise is made available to consumers anywhere in the country on very short notice (in most cases less than twenty-four hours).

(5) Credit facilities:—Some indication of the volume-encouraging extension of credit to independent retailers by service wholesalers is seen in the $68,400,000 in accounts and notes receivable on the books of service wholesalers at the start of business in 1933.

"Arising, therefore, from the dominant position of the service wholesaler in the field of drug distribution are these manifest advantages:—

"The successful volume-encouraging handling of credit.

"Contact with 95 per cent of all independent retail druggists with calls on 93 per cent at least two times a month. The service wholesaler is the only distributive channel offering manufacturers essentially complete coverage of independent retail druggists in the United States with men constantly in the field in personal con-



Mrs. J. H. McShane J. H. McShane J. J. Kerrigan Harold W. Simpkins

A. H. Beardsley

Smith L. Rairdon

Harry H. Gritzan

Ralph R. Patch

Mrs. E. J. Rhein

P. C. Magnus J. W. Felton, Jr. L. D. Etman

J. C. Chilcott J. J. Kerrigan

G. C. Dickey A. H. Smith

B. F. Zimmer F. H. Leonhardt

S. B. Penick, Jr.

A. A. Wasserheid

C. M. Badgley

C. L. Huisking F. H. Leonhardt Charles Herman B. F. Zimmer R. F. Spalding G. L. Ringel

Mr. and Mrs. Turner Currens

Carleton H. Palmer

Frank L. McCartney

Charles G. Merrell

W. H. Berg J. T. Pardee

E. J. Rhein H. J. Walters

James De Cesare

Herman G. Weicker

C. L. Huisking V. E. Williams R. F. Spalding Charles Herman

Bruce Puffer

Foster T. Smith

C. P. Frailey S. Dworkin

J. G. Searle E. D. Slater

George S. Jay

C. H. Lander

R. K. Snow

Carl F. G. Meyer

John V. Powers

F. J. McDonough

Mrs. B. F. Zimmer

Mrs. F. H. Leonhardt

Mrs. H. M. Kiesewetter

Mrs. C. L. Huisking

E. H. Bobst

R. L. Lund

C. M. Kline J. F. Belsterling

Arthur Rowe

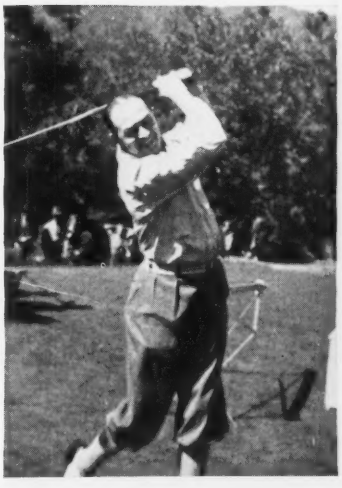
A. C. Boylston

C. S. Beardsley

A. H. Beardsley

Glenn Haskell

Stanley J. McGivern



Mrs. E. L. Newcomb

Mrs. E. H. Bobst

tact with dealers giving the closest attention to their requirements.

"The unique intimacy of relationship between retailers and service wholesalers . . . providing the finest possible avenue of approach for a manufacturer's own salesmen, working in co-operation with the service wholesaler.

"The economy of distribution through the established and adequate facilities of the service wholesaler—if this be not dissipated by small but draining diversions through other channels with the inevitable duplications involved.

"A study of the facts presented in this book establishes, we believe, the significance of two basic principles in successful drug distribution:—

(1) That price and profit protection—the most effective safeguards against footballing, substitution, and other salessapping evils are best conserved by controlled distribution.

(2) That the service wholesalers offer facilities affording both the foundation and basic structure for the controlled movement of drug products from the manufacturer through the various channels of distribution to the ultimate consumer."

The Board of Control of the association presented for approval by the members a number of decisions which it had reached. Foremost among these decisions approved by the members were:

(1) Approval of the Proprietary Association advisory committee on advertising.

(2) Enunciation of the belief that, despite the advantages in certain specific instances, free deals should be eliminated completely.

(3) Members should give consideration to those manufacturers who are making consistent efforts to discourage substitution.

(4) Since the consignment method of stabilizing prices might become the object of great abuse, further special study should be made of this method of distributing proprietary goods. An investigation of the laws of various states should be made since some of these laws very decidedly limit or regulate the manner in which consignment contracts may be made operative.

(5) That the association should be a party to the presentation of a new federal food and drugs act fair and equitable to all. In other words, the association should be a party to an offensive action rather than to accept the responsibility of acting in a defensive way.

(6) That the association should apply to the Federal Trade Commission for a fair trade practice hearing.

(7) The association should take steps to supply itself with proper legal advisors, one or more, as circumstances dictate, in New York and Washington, by means of which the association might be kept abreast of the latest developments and at the same time be adequately served in a satisfactory and capable manner.

A. Kiefer Mayer was elected president for the coming year, and A. J. Geer was elected honorary president. Other officers elected are:

First vice-president, Ludwig Schiff; Second Vice-president, W. S. Starkey; Third Vice-president, Edward S. Albers; Fourth Vice-president, Sam Dunlap; Fifth Vice-president, Charles Bergman; Members of Board of Control for three year term: William Ochse, Norman B. Livermore, George Van Gorder.

Two addresses before the convention which were unusual were those of Edward F. Hutton, chairman of the board of General Foods and Zonite who spoke on the Liberty League, and Ogden L. Mills, former Secretary of the Treasury, who spoke on the present problems of the government of the country.

Robert L. Lund was toastmaster at the banquet which was held on the final evening. Speakers were retiring President Henry L. Faxon; President A. Kiefer Mayer; and Proffessor Josh Lee.

In the men's golf tournament F. H. Lane won the Drug Topics cup by tossing a coin to decide a tie with H. P. Burnham.

A consolation cup awarded to the player with the highest gross score was captured by F. H. Leonhardt with a gross of 308. W. O. Evans was awarded the prize for the most pars in thirty-six holes.

Other winners were: A unique feature this year consisted of a prize of a matched set by Bobby Jones golf clubs, donated by the Shu-Milk Corporation, which was awarded by lot and was won by Harry Frank, Portland, Ore.

The winning scores follow:—

First flight—Low gross (36), Paul H. Hyde, 150; runner-up low gross (36), Kayton Smith, 164; low net (36), Bruce Puffer, 147; runner-up low net (36), L. J. Engel, 149; low gross (1st 18), William Veeneman, jr., 81; runner-up low gross (1st 18), J. G. Searle, 82; low net (1st 18), H. L. Brooks, 72; runner-up low net (1st 18), J. M. Buck, 75; low gross (2nd 18), H. P. Watson, 80; runner-up low gross (2nd 18), H. W. Simpkins, 83; low net (2nd 18), George S. Huff, 68; runner-up low net (2nd 18), John Travis, 73.

Second flight—Low gross (36), G. S. Dunbar, 183; runner-up low gross (36), H. M. Keisewetter, 186; low net (36), H. P. Burnham, 144; runner-up low net (36), W. L. Davol, 149; low gross (1st 18), Ellery Mann, 92; runner-up low gross (1st 18), E. A. Olds, jr., 93; low net (1st 18), J. C. Chilcott, 73; runner-up low net (1st 18), L. T. Piper, 75; low gross (2nd 18), J. W. Kane, 91; runner-up low gross (2nd 18), George H. Moehle, 92; low net (2nd 18), E. D. McDaniel, 71; runner-up low net (2nd 18), F. T. Griffith, 72.

Third flight—Low gross (36), C. P. Libby, 192; runner-up low gross (36), H. P. Kendall, 197; low net (36), George Shipley, 146; runner-up low net (36), A. C. Boylston, 147; low gross (1st 18), G. F. Gardner, 102; runner-up low gross (1st 18), F. L. Tomkins, 99; low net (1st 18), W. E. Weiss, 75; runner-up low net (1st 18), J. J. Kerrigan, 76; low gross (2nd 18), Austin Waite, 99; runner-up low gross (2nd 18), D. F. Reudig, 100; low net (2nd 18), A. H. Fiske, 70; runner-up low net (2nd 18), A. H. Rowe, 76.

PERMANENT WAVING SOLUTIONS

By Everett G. McDonough, Ph. D.*

Permanent wave solutions are important preparations in the field of cosmetics. In this article Dr. McDonough discusses these preparations in a masterly fashion.

To one interested in the art of permanently waving hair, a very pleasant time can be obtained by reading patents to this art. The information gained is interesting and presents a very good historical picture of permanent waving.

One of the first patents issued in 1873 on improvement in hair-curling relates how the inventor washes plaits of straight hair with rain water and ammonia. "After drying in the sun, the hair is moistened with Burnett's Cocaine and wound tightly about a curling stick. Strips of paper and cotton cloth are then wound over the hair. The hair is then placed in a solution (one ounce of Borax to eight parts of pure rain water) contained in a tin vessel. This solution is then boiled for four hours. The hair, still on the sticks, is then placed between two boards and heated in a hot, dry oven for three to six hours. The hair can then be dressed, preferably with Burnett's Cocaine."

Such a method, would be applicable only to isolated strands of hair, and not to hair on human head. However, some of the first methods used were almost as inconvenient, and probably the results on hair were not as nice, since more vigorous chemical and heat treatment were necessary in order to shorten the time. One method prescribed a saturated borax solution, with an extra amount of borax and a little sodium thiosulfate added for good measure, to be used on the wound hair. After enclosing in flannel wrappings and a bag, the hair was placed in a suitable heating tube and heated at a temperature of about 800° F. for about ten minutes. If any hair was left it was curled—permanently.

Many of the first methods, and even some in practise today, tried to avoid the use of permanent waving solutions by incorporating within the absorbent materials soluble alkaline chemicals (usually powdered borax) which when wet with water would give wet alkaline wrappings ready for use on the wound tress of hair. These absorbent materials were usually backed by suitable materials so that tubes could be formed about the hair, and clipped at the scalp end to prevent steam from escaping and burning the head.

It appears that up until 1920 the solutions used, or formed in the absorbent, were almost always borax solutions, usually a saturated solution. At that time, bicarbonates and carbonates of sodium or potassium were introduced. They were used either in addition to the borax or alone—

Typical formulas used in the early twenties are:

No. 1. 40 parts Borax.
2.5 parts Bicarbonate of Soda.
100 parts of water.

No. 2. 20 parts Bicarbonate of Potash.
100 parts of water.

No. 3. 6 parts of Carbonate of Potash.
100 parts of water.

Also prevalent during the early twenties were many methods intended to overcome the harshening action of the chemicals and, although not recognized but much more important, the dessicating action of the heat. It is obvious that as the temperature increases and the water is boiled off as steam the concentration of the chemical becomes greater and greater until it crystallizes out upon the hair, and in the case of borax solutions, the borax was literally fused into the hair shaft. No wonder the curled hair came down dry, harsh and often broken. To overcome this result new methods were devised. Basically one group of methods consisted in pre-coating the hair with a greasy substance, such as lanolin. This coating functioned as a protective lubricant. The other group of methods made use of Ammonia or compounds that would evolve Ammonia under the influence of heat. This latter method was more successful since with an increase in temperature the alkaline concentration was decreased, rather than increased, by the evolution of ammonia gas.

$$NH_4OH + \triangle \longrightarrow NH_3\uparrow + H_2O$$

$$(NH_4)_2CO_3 + \triangle \longrightarrow NH_3\uparrow + H_2O + CO_2$$

*Chief Chemist, Marinello, Inc.

Of the ammonia compounds used ammonium hydroxide (ammonia water) was and is the most popular. Very much used, however, are the ammonium salts of weak acids, such as carbonic, boric, acetic, sulfurous and phosphoric. One ingenious method employed was to generate ammonia by impregnating the absorbent with Sodium carbonate and just prior to use dipping this alkaline reacting absorbent into a solution of ammonium chloride or sulphate.

Ammonia or ammonia-forming lotions do have the advantage of not concentrating or depositing a hair-harshening chemical upon the hair, yet they do have two serious disadvantages. They are unpleasant to use, since the evolution of ammonia gas is neither conducive to the comfort of the patron nor to the ease of handling by the operator. Also, unless tightly stoppered, the ammonia gas volatilizes leaving a weaker lotion.

The advantages must outweigh these disadvantages for most of the better known permanent waving lotions on the market today contain ammonia-forming compounds.

To give formulas for permanent waving solutions that would be workable for all permanent waving systems is impossible. All permanent waving solutions should be thoroughly tried with a particular heating system before used commercially. For ammonia lotions using aqua ammonia (28% NH_3) the normality of NH_3 probably workable will be between 1N and 2N (6% to 12% aqua ammonia). With ammonium salts of weak acids the NH_3 normal content should be increased to 3N to 4N for the weaker acids, boric and carbonic, and higher for the stronger weak acids.

Still in use are the non-ammonia types that use frequently 3 to 20% of the carbonates of potash or soda. Generally, however, these non-ammoniacal permanent waving solutions are mixtures of alkaline-reacting salts such as the carbonates, borates, tri-phosphates, sulfites, acetates of sodium or potassium.

Usually the lotions on the markets will contain both a stable alkaline substance, such as borax, in combination with an unstable alkaline substance, such as ammonia water of ammonia carbonate—a typical formula of such a solution might consist of ammonia water 5%, borax 10%.

Also there may be added substances that are supposed to exert a protective action upon the hair. Alkaline treated keratin (which is no longer keratin but hydrolytic products of keratin) have been used. Oils have been added just previous to use (long contact would result in saponification). It is doubtful if these additions have real merit. Probably the best results are obtained from the use of sulfonated oils such as Turkey red oil. The method usually employed is to ship the oil separately from the alkaline solution. One to five per cent is recommended to be mixed with the solution when ready to apply to the formed tress of hair. This milky-appearing lotion has some merit and is particularly impressive to the patron receiving the wave.

Anemia

(Continued from page 474)

used, fresh or dried, instead of liver. As a result, hogs stomach, suitably prepared, is also the basis for considerable pernicious anemia therapy.

This contribution by Castle was the result of the intensive work which was done to discover the active principle which has since been isolated, but not yet synthesized. This active principle is secreted in the stomach, where it appears to act upon some extrinsic factor derived from food. The resultant product is absorbed and stored in the liver, and passes also to the brain, kidney and marrow. The nature of the extrinsic factor is even yet not clear, although it seems to be linked with vitamin B. Much research is now being conducted and many interesting discoveries are promised by the future of this field, but, therapeutically speaking, the problem of pernicious anemia was solved by Minot's work in 1926.

Before that time, all anemias had been treated with iron and arsenic in various forms and combinations. Immediately following Minot's announcement, in the general stampede to liver therapy, the iron and arsenic treatment was almost completely forgotten. More recently, however, there are indications that the older therapy is once more moving into an important place, both as secondary treatment in pernicious anemia and as primary treatment in the secondary anemias. Liver therapy is a specific in pernicious anemia, but, at the same time, iron, arsenic, hydrochloric acid, vitamin B, and other materials have been found to be of definite advantage in speeding recovery in certain cases. In some of the secondary anemias, liver therapy has some advantages, but in others it is of no value, so that it may be said in a general way that the older type of anemia therapy is of chief importance in the treatment of secondary anemia.

In anemia, the system suffers from a deficiency of iron. The iron metabolism is upset and the usual bodily sources of iron are not being utilized. Hence iron is administered in one of its forms, either as Blaud's pills, reduced iron, ferrous carbonate, or iron and ammonium citrate.

Arsenic is believed to enhance the effectiveness of iron and is given alone, or in the form of Fowler's solution or sodium cacodylate. It appears to act as a marrow stimulant and is especially recommended for undue tiredness commonly associated with anemia.

Hydrochloric acid is usually completely lacking in pernicious anemia and may be below normal in some of the secondary anemias. It is common accessory treatment particularly in pernicious anemia. This form of the disease is often complicated with nervous system lesions and in such cases vitamin B is helpful in clearing up this condition. Iodine, copper, thyroid extract, calcium and phosphorus are some of the other materials which have been useful in the fight against what has been described as one of the most common ills of our generation.

SHAVING CREAMS

Is it possible to develop a shaving cream which may be used as a lather or latherless cream as the user wishes?

Ewing Galloway

Most chemists like to experiment with shaving cream even when they have no intention of developing a new product, for the reason that few pharmaceutical preparations can be made from such a wide diversity of materials and fewer still have so many requirements to meet. In making a good shaving cream there is a combination of chemistry, physics and plain unvarnished cookery, which is at once an appeal and a challenge. There never was a shaving cream so perfect that by juggling the materials or the manufacturing procedure somewhat it could not be made better. There never was and perhaps never will be a shaving cream which can be used with uniformly good results on all types of beards and all types of skin.

Always there is some new material to challenge the imagination of the alert chemist. Whole groups of them have come out within recent years; others still are coming: sodium cholate, sodium stearyl, lauryl, oleyl and cetyl sulfonates, synthetic alcohols, sulfonated oils, cholesterin lecithin, triethanolamine soaps. Some of these are much too expensive for commercial purposes, some aren't available in commercial quantities. Some impart an objectionable color to the product; some have merit, some have not. But the quest goes on with the big goal yet to be reached—the development of an all purpose or combined brushless and lather cream.

What a revolutionary merchandising story that would make! "Use a brush and work up a lather if you want to; smear it on with the fingers and shave without the brush." Those of you who have tried to develop such a cream will smile ruefully at this. You've tried your hand at it and no doubt, you too, like us, have had your trouble for your pains. The production of the Universal Shaving Cream is still a dream. But like the hunt for the philosopher's stone, it is challenging enough to keep us at it. As we hope some day to win the Irish sweepstakes, so do we also hope to develop the prize product of the shaving cream field. Many chemists have made creams which combined properties of both lather and lather-less creams. But all have been border line products. If they lather sufficiently when rubbed up with water, they don't quite give a comfortable shave when smeared on with the fingers. When they give a comfortable shave as brushless cream, they don't give enough lather to be used the other way. Recently a well-known chemist admitted to us that he had worked so long on this exasperating problem that he had reached the Thomas Edison stage, that is, in his despair, he had tried about all the chemicals listed in Merck's Index, one after the other hoping that one of them might click. This is somewhat exaggerated because this gentleman is a much better chemist than the late Mr. Edison. At any rate he's still at it.

So is it any wonder that chemists find the shaving soap field so interesting? It is not, however, our purpose to discuss our efforts to combine two shaving creams in one even though our laboratory notes would make an interesting record of prolonged despair. We are simply going to extend our comments on shaving cream as such.

As we stated in the beginning shaving cream has a number of properties but all of these support two basic purposes which are to make shaving easy and to avoid irritating the skin. Its properties therefore can be tabulated under these two heads: functions which promote easy shaving; functions which prevent or allay irritation.

Easy shaving is promoted by softening the hair and by holding it erect so that it will not drag against the razor. Water softens the hair, alkalinized water softens it still more. In a good shaving cream there is sufficient water and enough alkali to accomplish this. In order to hold the hairs erect it is essential that the cream have good body and that the bubbles be small. The body of the cream is governed largely by the amount of soap it contains. It is also influenced by the size of the bubbles. The smaller and more tenacious the bubbles, the stiffer the cream. The size of the bubbles is determined by surface tension. This can be lowered by chemicals such as sodium lauryl sulfonate, cetyl alcohol, etc. When the bubbles are small and the surface tension is low the cream can get down to the very base of the hair where it is softest, and it can wet the hair better besides holding it erect more firmly.

In order to prevent irritation the cream must be as nearly neutral as possible as an excessive amount of free alkali is harmful. Inasmuch as the passage of the razor over the skin is bound to cause some irritation, it is essential to put materials into the cream which will serve as lubricants. The cream itself lubricates somewhat but lubrication is best promoted by adding slight amounts of unsaponifiable materials like mineral oil or lanolin. A lot has been said for glycerin in this connection. We believe that glycerine serves no other purpose than that of keeping the cream from drying out too rapidly. A high glycerine cream is a poor shaving cream because it actually *prevents* the softening of the hair.

This statement will at once be challenged. It can be proved, however, by making an eight per cent depilatory solution of sodium sulphide. Without glycerin the solution will dissolve hair almost immediately. The addition of a small amount of glycerin offers little interference. Above five per cent, however, the glycerin will slow the depilating action down, and at ten per cent, the length of time required to dissolve the hair is doubled. In these experiments the same percentage of sodium sulphide was used in the several solutions. We therefore recommend keeping glycerin content low.

With the foregoing as a basis, the following formulas are offered for experiment. In each the glycerine content is low. It is our opinion that increased percentages impair the softening action of the creams. Inasmuch as manufacturing procedure for both formulas is identical it is given below for both formulas.

Formula No. 1.

Stearic acid	25.0%
Cetyl alcohol	3. "
Coconut oil	10 "
Lanolin	2 "
Sodium lauryl sulfonate	3. "
Potassium hydroxide 85%	8.5 "
Sodium hydroxide 85%	.7 "
Glycerin	5. %
Boric acid	1.5 "
Water	40.8 "
Perfume	.5 "

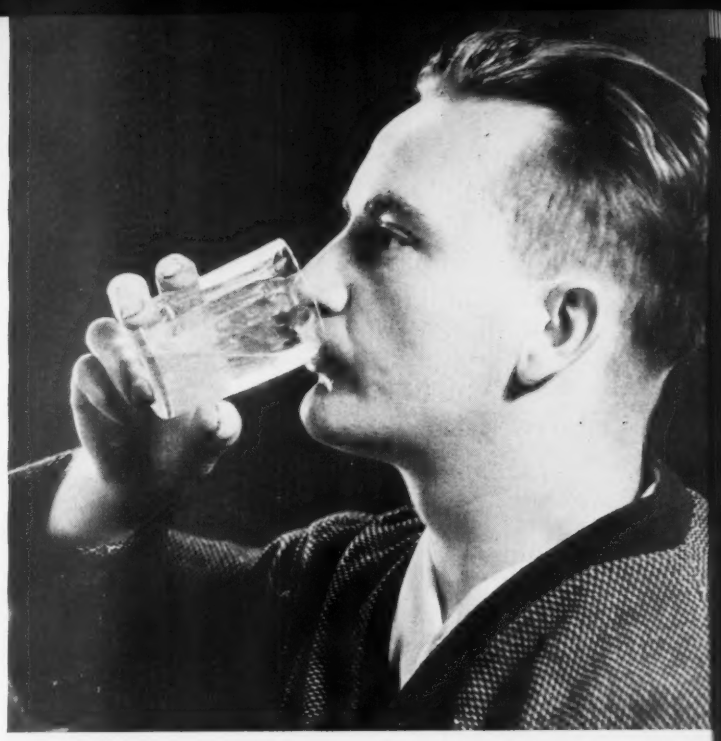
Formula No. 2.

Stearic acid	25.0%
White tallow	5. "
Coconut oil	7. "
Cetyl alcohol	5. "
Mineral oil	2. "
Potassium hydroxide	9. "
Sodium hydroxide	.7 "
Glycerin	3. "
Boric acid	1.8 "
Water	41. "
Perfume	.5 "

Procedure: Divide the stearic acid into two equal parts and melt separately. To one part of the stearic acid add the coconut oil, and, in the case of the second formula, the tallow also. To the other part of the stearic acid add the cetyl alcohol, the lanolin or the mineral oil as the case may be. To do this properly two steam jacketed kettles should be available. In a third container place the water and bring it almost to the boiling point. Run off enough into a separate container to dissolve the boric acid. The boric acid solution is put aside and the potassium and sodium hydroxides, the glycerine and the sodium lauryl sulfonate are added to the water and allowed to dissolve. This they will do very rapidly with considerable splashing, so the operator should be careful to use a large enough kettle. At this stage of the process you have two kettles of hot, melted stearic acid, one kettle of hot alkali solution and a pailful of hot boric acid solution.

The kettle containing the stearic acid-coconut oil mixture is run into a hot mixer, which should be steam jacketed preferably, and the agitator is started at once. The valve of the alkali kettle is opened part way and the alkali solution is added to the stearic acid in a fairly good stream. Mix for about half an hour after all the alkali has been added, with steam on the jacket. Then slowly run in the contents of the second stearic acid kettle, continuing the mixing until all is taken up. When the cream is smooth and begins to assume a pearly appearance, pour in the hot boric acid solution. Finally stir in the perfume when the temperature of the cream has dropped to about 50° C. The cream is now finished. If a cooler is available the cream may be cooled at once. Otherwise it may be allowed to stand for a day before filling. In order to make a smoother product many manufacturers run the cream over milling rolls after it is finished. If the cream turns out spongy it will be necessary to do this to expel the entrapped air. However, if the mixing operation has not been too rapid the cream will not be spongy.

GARGLES



Preparations for gargling the throat will shortly be in heavy demand. In this article the ingredients of many types of preparations are given.

Sore throat is a common ailment in winter and one of the usual manifestations of a cold. Although mouth washes are used as gargles, a number of firms enjoy a considerable business in the sale of the latter specialty. Generally speaking these preparations are more astringent than ordinary mouth washes, somewhat more antiseptic and considerably less pleasant to the palate. As to whether it is better to sell a mouth wash for as many purposes as it can be made to perform, or whether it is best to sell gargles as an individual member of a family of cold remedies, depends upon the merchandising methods of a company. It seems likely that the policy of claiming too many virtues for a single product can reach a point where it becomes discredited for all purposes. One of the features of a gargle which would enable a clever merchandiser to reverse the process, is that since the gargle must be taken into the throat, the mouth and teeth are rinsed at the same time. In any case the sale of a gargle as such offers an opportunity to get a good price for a very small quantity of a concentrated solution which can be used for both purposes. In their simplest aspects gargles are astringent, antiseptic solutions intended for treating an inflamed and infected throat. The following formulas indicate the type:

Formula No. 1.

Menthol	.07%
Thymol	.07 "
Formaldehyde	.8 "
Honey	20. "
Alcohol	17.5 "
Water	61.56 "

Procedure: The menthol and thymol are dissolved in the alcohol and the formaldehyde is added as soon as solution has taken place. The honey and water are mixed and the alcoholic solution added. A tablespoon of this is used with about six times as much water.

Formula No. 2.

Zinc chloride	4.3 %
Hydrochloric acid, dil.	1. "
Glycerin	43. "
Peppermint water	51.7 "

Procedure: Put the hydrochloric acid into about half the water and dissolve the zinc chloride in it. Filter and add the glycerin and the remainder of the water. Dose: a tablespoonful in a glass of water.

Formula No. 3.

Hydrastine hydrochloride	.1%
Sodium chlorate	2. "
Solution of ferric chloride	.8 "
Tincture of aconite	.5 "
Syrup of tolu	44. "
Glycerin	50. "
Alcohol	2.6 "

Procedure: Dissolve the hydrastine hydrochloride in part of the water. Mix the alcohol and aconite and stir into this solution. Add the syrup of tolu, and the ferric chloride mixed with the glycerin. Mix well. Dissolve the sodium chlorate in the rest of the water. As sodium chlorate is explosive, handle it with care and do not subject it to shock. Mix the sodium chlorate solution with the rest of the batch.

At all times sodium chlorate should be kept air-tight. It is used in gargles instead of potassium chlorate because it is more readily soluble. Dose: A tablespoonful in half a glass of water. This may be swallowed slowly in treatment of severe cases.

Formula No. 4.

Tannic acid	12.0%
Glycerin	15. "
Alcohol	10. "
Water	63. "

Procedure: Mix the tannic acid with the glycerin, add

(*Continued on page 567*)

HEMORRHOIDS

A brief, but comprehensive article on remedies for this comparatively common condition.

Preparations for the relief of hemorrhoids (piles) are sold in very considerable volume in the form of ointments and suppositories. It is doubtful, however, that the nature of a hemorrhoid is clearly understood. Many people suppose it to be an irritation or an eruption of some sort and one which can be definitely cured by means of external applications. But hemorrhoids are not sores in the accepted sense. They are varicose tumors of the hemorrhoidal veins. They are caused by cardiac and pulmonary diseases, constipation, obesity, sedentary occupations and from many other more remote causes. Probably constipation is the most frequent cause, the condition being aggravated by constant straining. It is doubtful whether hemorrhoids can be permanently remedied without surgical treatment. There are two classifications of piles: internal and external.

However surgical treatment is not required in the majority of cases. Most people are unaware of their condition excepting at intervals when they are subject to "attack" precipitated by constipation, exhaustion or undue straining. Hence any preparation which will give temporary or periodic relief performs a useful function. Piles are very painful at times; often they are attended by acute itching or burning. Hence, treatment should recommend a laxative to obviate straining at stool and the product should be astringent soothing and antiseptic. Patients should be advised to keep piles clean at all times, a recommendation which is not easy to carry out because of the numerous folds and irregularities in the hemorrhoids and within the anus. This can best be done by the injection of a small amount of cold water after each evacuation.

It appears that pile ointments or suppositories should contain a good astringent such as tannic acid or alumnol; an antiseptic such as the mercury salts, phenol, or creosote; cooling agents such as menthol; soothing agents such as balsam of Peru and possibly local anaesthetics such as benzocaine, chlorbutanol, etc.

The base used in making the suppositories is usually cocoa butter or gelatin. The ointment bases include lanolin, lard, petrolatum and any mixture of these which strikes the fancy of the chemist. The main point to consider in selecting the base is the problem of seepage which makes so many pile remedies objectionable. This is a difficult problem because no matter how clearly directions read, the average patient is not likely, because of soreness, to insert the applicator far enough. The problem is complicated still more by reason of the fact that the medicaments must begin to give relief immediately.

The manufacture of pile remedies is comparatively simple. However, as so many of them contain tannic acid, mercury salts or iodine one must give attention to the materials out of which the processing and filling equipment is built. All ordinary metals are out. Iron, brass, bronze, copper and tin particularly. In most cases stainless steel may be used. Tanks and mixers may be, in most cases, glass-lined or made from some other non corrosive metal alloy.

Formula No. 1.

Cocaine hydrochloride	3%
Belladonna extract	8 "
Tannic acid	15 "
Petrolatum ointment	76.7 "

Procedure: The petrolatum is melted and the various ingredients are stirred into it. When the ointment congeals it is run through a stone mill.

Formula No. 2.

Menthol	.5 %
Calomel	10 "
Zinc oxide	33 "
Tannic acid	.25 "
Boric acid	.25 "
Carbolic acid crystals	.5 "
Yellow beeswax	3 "
Petrolatum	52.5 "

Procedure: The menthol and carbolic acid are rubbed together until they liquify. A part of the petrolatum is melted and the zinc oxide, boric acid and calomel stirred into it in a pony mixer. This mass is then run through an ointment mill. The remainder of the petrolatum is melted and the tannic acid stirred in. Then the medicated base is stirred in and the whole batch mixed for about an hour. It is then run through an ointment mill again.

Formula No. 3.

Chlorbutanol	8.00%
Menthol	.25 "
Phenol	.5 "
Olive oil	20 "
Lanolin	7 "
Petrolatum	64.35 "

Procedure: Put the first three ingredients into the olive oil and mix until all are dissolved. Melt the lanolin and petrolatum and stir in the medicated olive oil. Mix well. This formula can be made stiffer by adding a suitable percentage of zinc oxide in which case it would have to be milled, or by adding a small percentage of beeswax.

IRISH MOSS

A common raw material of the industry doubles in price. This article tells the whys and wherefores in addition to much interesting information regarding Irish Moss.

Kraemer's Scientific and Applied Pharmacognosy

Although known in the trade as Irish moss, the article of commerce comes almost exclusively from France. Although called moss, it really is a type of sea weed. Call it by what name you will, or by what designation indicate its specie, the fact remains that manufacturing consumers are now forced to pay double the price at which this raw material was available but a few months ago.

Hand picked number one grade, suitable for pharmaceutical use, is now selling at from 18c to 22c per pound, the highest prices to prevail for many years. The price first started to advance in the early Spring of this year when the first collections were made. Recent purchases for import have been made at from 4c to 5c per pound above the highest levels reached during the previous advances and the underlying strength of the primary market seems so pronounced as to indicate that the upward trend is likely to continue for some time.

From the meager reports available in the spot market as to actual conditions in the producing country, the scarcity which is responsible for the higher prices is attributed to the fact that tidal disturbances swept much of the moss away and that continual rain along the coast of France during the producing season, which extends from the early Spring up until the late Fall, seriously delayed the drying which is done by laying out the moss on the dunes and subjecting it to the action of the sun.

It is also possible that supplies are diminishing, since collection has been going on for many years in France. While this material formerly came almost exclusively from the coast of Ireland, hence its name, it is said that diminishing supplies there finally transferred the business to France.

Higher labor costs are also said to be factors in the reduced production this year. Europe is reported as being a heavier buyer than heretofore. So much so that there was practically no carryover from the 1933 crop. This buying has led to the belief that some new use has been found for Irish moss in Europe, although no direct information is available on this point. Europe is also paying higher prices for moss than can be obtained here and this is considered as justification by the French exporters for raising their prices on material destined for export to the United States. The French attitude seems to be that, as the item is scarce and likely to get more scarce before a new crop can be obtained in the Spring of 1935, they should get all that the trade will bear in the way of price.

Irish moss or Carrageen is the entire plant of Chondrus crispus. These plants are common red algae found along many rocky coasts but the commercial supplies come mainly from the Brittany coast of France. Men in small sail boats or dories go out to collect it at half ebb tide and come in at half flood. With their long rakes they scrape the moss off the rocks, collecting in this way about 50 pounds to the boat. At low tide the moss that has been deposited on the shore by the action of the sea is picked up.

Formerly the moss was bleached in the sun by laying it out on the dunes for a week or so, the action of the sun and dew bleaching it to a light color. It was then enclosed in hogsheads in which it was again saturated

(Continued on page 567)

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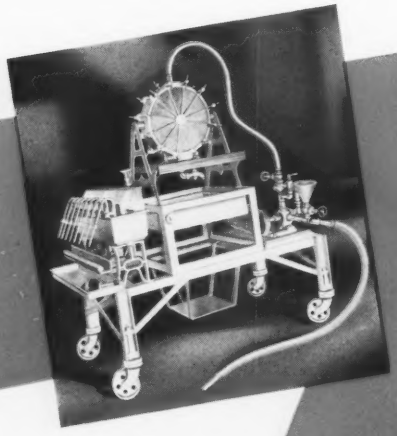
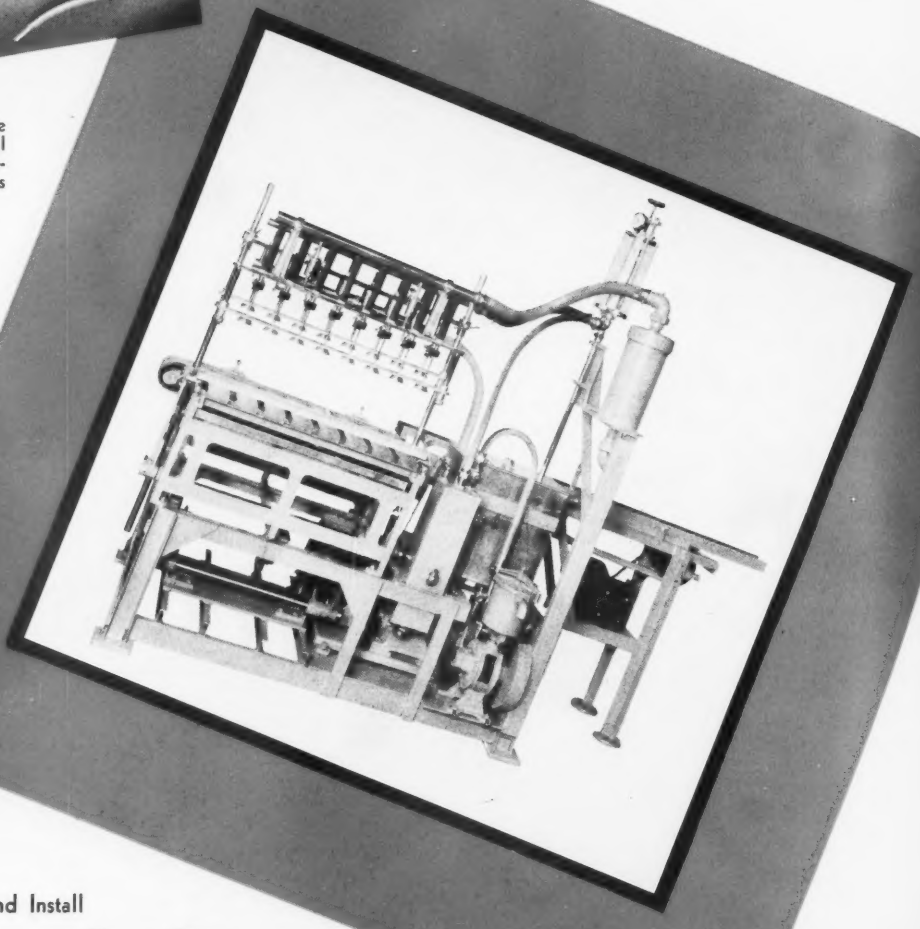


Above is a U. S. One Man Portable Combination Outfit, for performing all Filtering, Filling and Pumping Operations in a small plant or for special runs in a large plant.



At the right is our New Model C Straight Line Vacuum Filler with Vacuum Cleaning Unit, which is made for Fully Automatic and Semi-Automatic Line Operation. It Vacuum Cleans and Fills containers on one machine, requiring the services of but one operator. The simplest, most economical and reasonably priced efficient Vacuum Cleaning and Filling Machine of the Automatic Power Operated Type.

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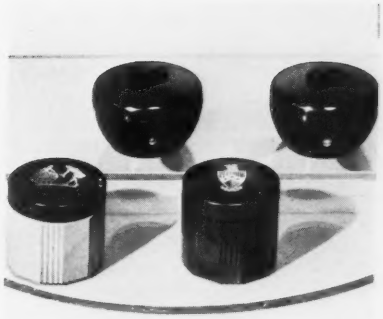
PACKAGING NOTES

Edited by Elmer Sheets

Storm Over Plastics



In our September issue, as is our wont, we presented three suggestions for new packages by Dr. von Miklos. One of them was the plastic jar shown directly above. As originally presented, this was quite a big jar, but it has shriveled and shrunk to its present insignificant size for reasons readily ascertainable below. The other pictures on this page are simply to show you what has been done in plastic jars and to remind you that there are a variety of stock molds for such jars already available.

The case for the prosecution is presented by Mr. C.W. Blount of Bakelite Corporation and by Mr. H. C. Crawford of The Arrow-Hart & Hegeman Electric Company, respectively. If after reading their criticisms, you still think that this package still has some merit as a suggestion, as a stimulator of ideas, we shall appreciate hearing from you, so that the case for the defense may be prepared. In the meantime, you will find the following criticisms very helpful:

Mr. Blount says that:

"First—from a utility point of view we consider the center of gravity of the package too high which results in poor stability either in a display or on a dressing table.

"Second—the package being a sphere and divided at the center of same leaves available only half of the container for the product packed.

"Third—in the event that the screw cap is placed on the bottom too tight, in view of the fact that the container is round it would be very difficult to unscrew one part from the other.

"Fourth—the molded pedestals or discs are of such a shape as to make it necessary to finish a fin at the center of the outside periphery of each disc. It is also necessary to attach the disc to the sphere half in some suitable fashion. I assume that this is accomplished by means of a thread. The whole construction is such as to make the package a very expensive one.

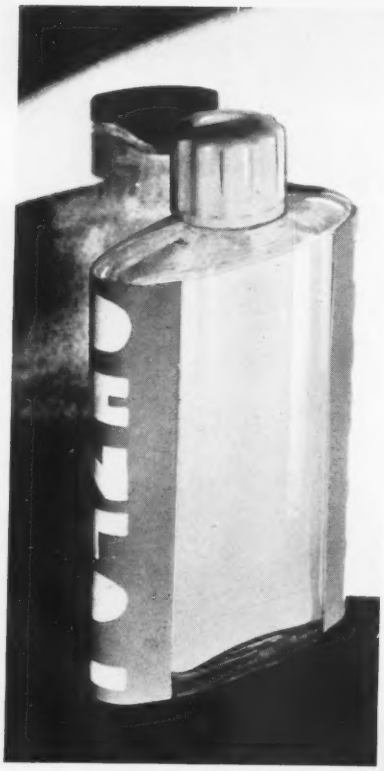
"Fifth—as shown it would be very difficult to secure the label in place acting as a seal as the designer suggests."

Mr. Crawford says that, "I would not approve of it as a practical molding application.

(Continued on page 511)

SUGGESTIONS for NEW PACKAGES

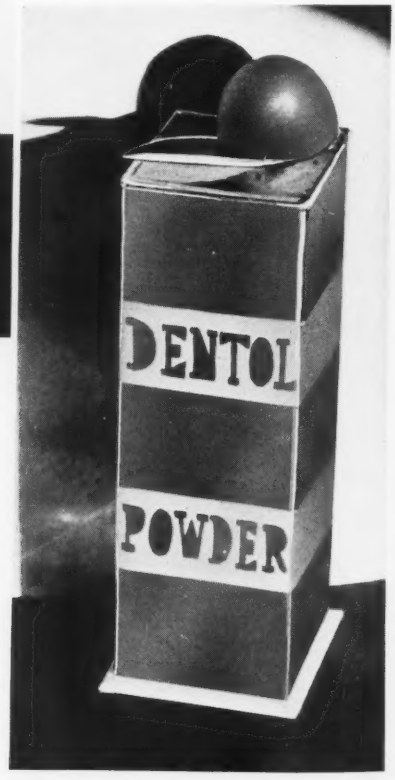
By JOSEPHINE VON MIKLOS, Ph. D.



1. White glass bottle with shoulders on the sides. Brilliant blue decoration on the sides with lettering printed white. Plastic cap, white.

2. Gold tin can. Brilliant red lettering, same top of cap, same color band on upper end of can.

3. Silver square tin. White bands with black lettering, white screw base for filling, white cap.



TOOTH POWDER

With all the very excellent designs of tooth-powder cans on the market and extremely practical caps as seen on the new Pebeco, "Albodon" and others soon to appear on the market—there still remains the problem to be solved, of how to avoid spilling the powder or to eliminate the use of the left hand in serving as a base for the powder before putting it on the brush. While the new caps make for ease of opening, protection and sanitation, there still is no way of blowing, rubbing, pouring the powder directly onto the brush. And, to our great dismay, we do not seem to be able to make better suggestions in our designs

shown on these pages, except perhaps some slight adaption, as discussed later.

The first of our dummies is glass, which, of course, has the very great advantage of visibility over the more usual can. We selected a rather attractive stock bottle in the shape of a flask which is very easy to handle. The cap is made of plastic material, which, when turned, opens over a hole and allows the powder to pour out. The suggested decoration on this bottle, is not printed on a paper label, but should be "anigraphed" on to the two side-shoulders, thus allowing a novel effect unobtainable in any other medium. The second dummy is made of a regulation tooth powder can whose distinction may lie in the rather unusual form of decoration which allows the metal to speak for itself and form the major part of the design feature. Our third suggestion adapts a square can for a tooth powder package. This particular design seems to be rather distinctive and in decorating it as we did, we have attempted to add some "swank" to the ordinarily humble appearance of a bathroom package. As to the closure, we have copied from one frequently used for salad oils and automobile oils. This small contraption should work the following way: a cap, very similar to the one used on the new Pebeco package, but opening invisibly on its inside, leads to a small metal spout from which the powder may be poured in a controlled form onto the tooth brush. Theoretically it should be possible to make a cap like this; and if it is and if some closure or can manufacturer wants to try it, we claim the first *copy*rights for it.

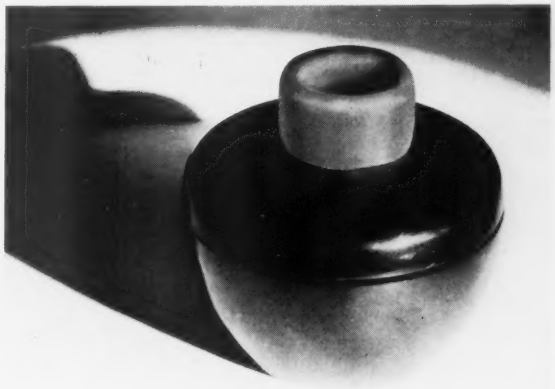
Silver tube with small label on top, tan, lettering black or brown. Tan folding carton, lettering same as on tube. Cover over applicator may be lithographed tan, black or brown, matching the lettering. The applicator, of course, would have the conventional rounded end. Pads made of gauze with thin pad of absorbent tissue similar to sanitary pads, only thinner.

PILE OINTMENT

People afflicted with the always most unpleasant and sometimes very serious disease of hemorrhoids, have, so far, also had to endure the difficulty of having their clothes soiled when using a pile ointment or suppositories. To do away with this we suggest a pile package that includes pads which may be attached over the affected part of the body, very much in the fashion of sanitary pads. A cotton or rubber band and two safety pins could be incorporated into the package without raising the price to a prohibitive level. Another suggestion is the use of a cap in the form of the applicator, fitting over the latter, instead of the regular tube screw cap which often has to be exchanged for the applicator. The reason for this suggestion is the danger of loss, always imminent where there are small extra pieces; it makes very little difference to the user whether he or she has to unscrew the longish cap instead of the regular small one and this method of closure will mean no additional handling over the old method when the applicator has to be cleaned.

SHAVING SOAP BOWL

Manufacturers of shaving soaps have created lately more attractive packages than many makers of other merchandise. The introduction of plastic materials and wood has enhanced greatly the appearance of shaving soaps, in addition to making these containers a distinct pleasure to the eye. However, there is one feature that seems not to have been considered; and that is, instead of a rim on the top where the brush may rest or a handle to lift the top, a combination rim and handle that will both hold the brush and serve as knob. There may possibly be some molding difficulties in making an item of this sort; although we rather think that it should not be impossible to create a stock jar in all sorts of colors that will sell in great volume if it incorporates this suggested additional feature.



Any striking color, bowl on photograph black.

TOOTH POWDER PACKAGES

TOOTH powders are packaged in tin or in glass. This fairly representative group of those on the market today illustrates variations in design and in type of closure. The more modern members of the group are easily recognizable and additions to their number promise to continue with increasing frequency as more and more manufacturers enter the tooth powder market or modernize containers already in the field.

Packaging TOOTH POWDERS?

THERE is a big swing to tooth powders this year and many large manufacturers are again advertising them nationally. Many smaller manufacturers are also finding them a means of enlarging their business.

No matter which classification you happen to be in, there is a Stokes & Smith Filling Machine that will serve you well. Beginning with S & S Semi-Automatic Fillers, which deliver 15 to 30 packages per minute, there is a complete line of S & S Fillers, leading up to completely automatic equipment producing 40 to 120 packages per minute.

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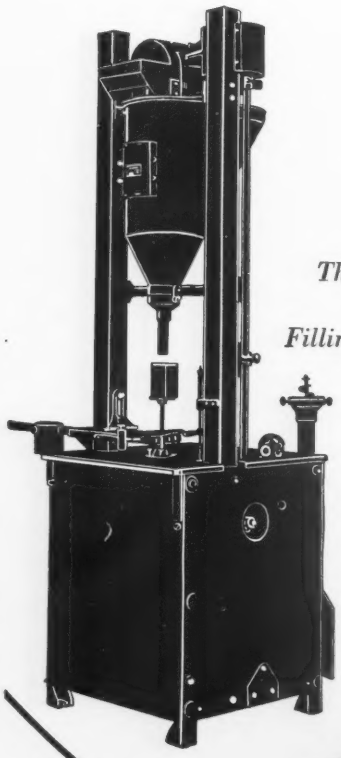

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Continental Can Co., Inc.
100 E. 42nd Street
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Att: Mr. W. F. Bredemeyer, Sales Mgr.

Gentlemen:

We have received the initial shipment of our Pebeco Tooth Powder Containers and feel that we cannot let this occasion go by without passing on to you our reaction and sincere thoughts.

The art work has been exceptionally well executed, giving the Container a tremendous eye appeal. The can is absolutely powder tight at the point of contact of the breast and the body, which we feel is necessary to the success of an oval powder can. The new tilt top cap is novel and very practical.

We are very well pleased with, and commend highly your Art and Development Department for their aid and help in developing the Can and the design.

We feel that with so attractive a container for so generous a portion of quality Pebeco Tooth Powder, it will immediately be claimed, by the Public, as the BUY OF THE DAY.

Very truly yours,
LEHN & FINK, INC.
By: Jerome Samet
Director of Purchases

JSamet:H

Letters such as Lehn & Fink's, of which we receive not a few, inspire our organization to even greater efforts. We can also serve you to your satisfaction.

CONTINENTAL CAN COMPANY

NEW YORK CHICAGO SAN FRANCISCO

COLGATE is offering several Christmas combinations designed by Simon de Vauchier. The box shown has a leatherette finish. Items are Dental Cream, Shave Cream, After Shave Lotion, Talc, and Brushless Shave.

MARION LAMBERT, Inc., St. Louis, is now offering its "Poise" nail preparations, consisting of nail polish, oily polish remover, cuticle oil, emery boards, orange stick and a lasting supply of batting, in a delightfully smart mirrored box which makes a unique package and charming re-use container.

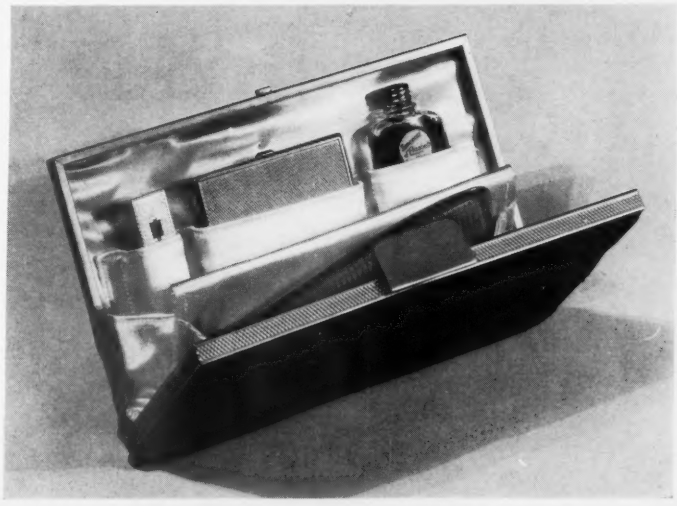
PENSLAR preparations have been most attractively repackaged in bottles specially designed for them. Smartly designed labels help to bring out the beauty of the bottle designs. Photo courtsey Hazel-Atlas Glass Co.

HARRIET HUBBARD AYER has made a departure in offering a combination set for men. This set contains Shaving Cream, Eau de Cologne, Ayeristocrat Talcum, Cream Cleansing Soap.

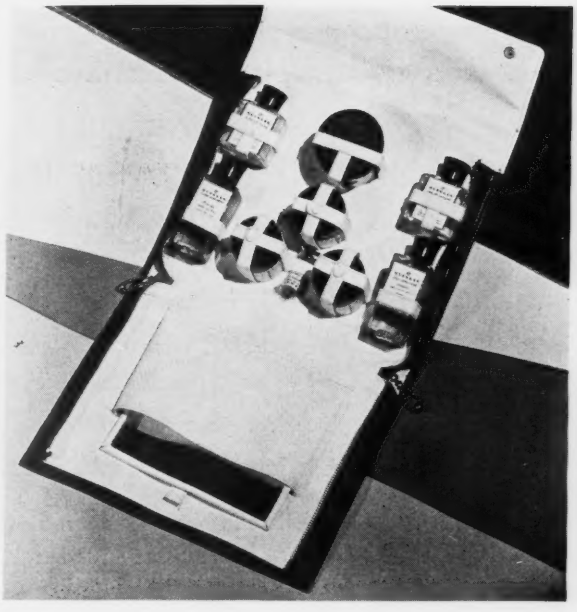
HARRIET HUBBARD AYER is offering a new De Luxe Treatment and Make-up Set containing tubes of Luxuria Cream, Beautifying Face Cream, Skin and Tissue Cream, and also containing Eau de Beaute Tonic, Purmasque, Cream Rouge, Eye Shadow, Stubby Lipstick, Beautifying Face Powder.

ELIZABETH ARDEN offers a new party bag in velvet, brocades, moires, lame, and striped regimental silks. The case contains a thin gold compact with matching lipstick, a bottle of "Blue Grass" perfume, "Prystal" comb, coin purse and cigarette pocket. Other new items include a beauty box, "Farewell to Age," consisting of a large size of "Ardena" cleansing cream, skin tonic, and "Velva" cream, together with a hair band designed to protect the hair from creams and lotions. Small size soap cloths, so much easier to carry than a cake of soap are also innovations.

KATHLEEN MARY QUINLAN travel kit embodies the brief case and compact idea with side zipper fastenings permitting of opening flat. Products include all essentials for traveling,—make-up lotion, violet astringent, powder, eau de Cologne, skin stimulant, special texture cream, cleansing cream, hand cream, and a tube of finishing cream.



PRODUITS NINA has created the traveling case shown. This is in red leather with blue moire lining. Items included are powder, white rose cream, geranium cream, centrasol lotion, tonic lotion.



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Opal Jars

In little shops or big department stores, wherever you find a discriminating clientele, you find cosmetics beautifully packaged in Hazel-Atlas Opal Jars. Why? Why are Hazel-Atlas Opal Jars the fastest selling cosmetic jars in the world?

LARGEST MANUFACTURERS OF OPAL JARS

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There is big sales value in the fine modern display that you get from Hazel-Atlas Opal Jars. And remember—prices are low! Free samples on request.

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GLASS CO.

WHEELING...W. VA.

RUTH YOUNG nail preparations are attractively packaged in specially designed bottles and plastic caps. Colors are Clear, Peach Blow, Prairie Rose, Cherry Blossom, Jacqueminot. Products are stainless and sunfast, will not chip or peel, are waterproof.

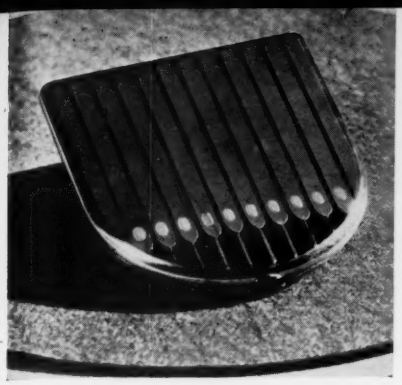
HOUBIGANT'S "Le Parfum Ideal" one of those rare fragrances which has survived changing trends in perfume for over thirty years is now available in a smaller size, a replica of the "Modele Original." This popular priced size in its attractive floral decorated box promises to enjoy the same success as the corresponding size in "Quelques Fleurs."

KELPEX LABORATORIES have adopted a striking package for their product. A handsome metallic label sets off the stock bottle. Carton is printed in silver. Photo courtesy Owens-Illinois.

GUERLAIN offers six new eye shadows,—Blue Pervenche (Periwinkle Blue), Vert (Green), Blue Argent, (Silver Blue), Chatin d'Or, (Golden Brown), Vert Argent (Silver Green), Blue Fonce (Dark Blue) and Brun (Brown). These are packaged in round green plastic boxes with white center decorated with concentric gold circles. Another Guerlain item fast coming to the foreground in this country is Guerlain's "Cuir de Russie" (Russian Leather) perfume. The well-known odor abroad is delicate yet exotic in fragrance, an excellent odor for sports as well as general use.

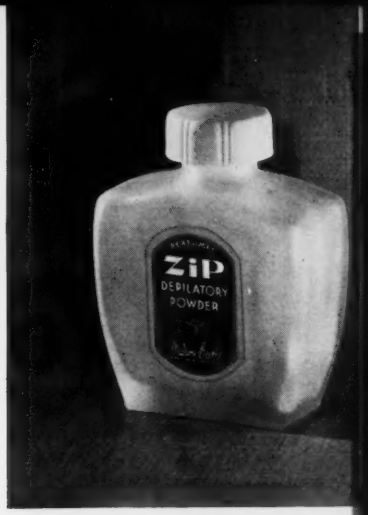
HOYT'S EAU DE COLOGNE is now packaged in a new attractive bottle with a silver metallic label printed in red and black.

VANITE is the name of the attractive perfume bottle set being offered by Owens-Illinois. Bottles are from the "hand blown" factory at Chicago Heights.



HELENA RUBINSTEIN offers the golden horseshoe vanity. Developed in satin striped gold tone case with touches of enamel, it contains a generous compartment for loose powder with a swansdown puff, compact rouge and cream rouge for the lips.

NUCHAR LABORATORIES have repackaged their famous Nuchar Tablets in an attractive black and white tin. The package contains 36 tablets each containing 3½ grains of activated vegetable carbon.



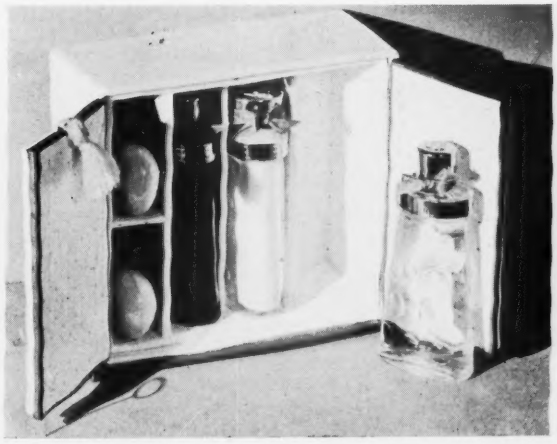
JEAN JORDEAU announces a new Zip Depilatory Powder especially adapted for Winter use. It is packaged in an attractive frosted bottle, and is surprisingly fragrant for a depilatory.

"WATER LILY" perfume in the depicted black and gold bottle with crystal cut water lily stopper, is the latest Helena Rubinstein sensation. The fragrance permeating the "Water Lily" line is emphasized in the perfume. An Eau de Cologne is another development. This too is in a wide bottom bottle which tapers to a slim neck, topped by a frosted glass water lily stopper.

"CUTEX" lipsticks to harmonize with "Cutex" nail polish colors are offered by Northam Warren Co. The four shades,—natural to harmonize with Natural, Rose and Mauve polishes; Coral, Cardinal and Ruby to harmonize with the corresponding named polishes,—obviates the clashing of nail tips with lips. The lipstick is permanent, velvet-smooth, non-smearing and holds its color. Case is enameled in black and has a new push-up feature that prevents the stick from slipping back.

KI-UMA, offered by E. Fougera & Co., is a product which combines salicylic ester dihydroxethane with a newly discovered tropical African gum. It is indicated in rheumatoid and arthritic diseases and rheumatic fever.

HELENA RUBINSTEIN offers a most original bath chest with swinging doors containing Enchante bath essence, Enchante eau de Cologne, and two cakes of Enchante soap.



BRIDGEPORT

THE smartest new cosmetic lines rely upon metal containers and metal covers to give their packages richness and charm. For distinction in metal containers, for the last word in beauty, design and utility, the smartest cosmetic manufacturers turn to Bridgeport Metal.

JAR CAPS
ROUGE CASES
POWDER BOX COVERS
EYEBROW PENCIL HOLDERS
METAL NOVELTIES
TO ORDER

The
BRIDGEPORT
METAL GOODS MFG. CO.
BRIDGEPORT · CONNECTICUT
PHONE: BRIDGEPORT 3-3125
Est 1909

BOTTLE CAPS
VANITY CASES
PASTE ROUGE CONTAINERS
LIPSTICK HOLDERS
(ALL TYPES)

Packaging Notes

(*Continued from page 497*)

Of course, it will be absolutely impractical as a stock item due to the fact that it is much too distinctive and were it to be sold to some particular house the quantities would have to be very large to absolve the expense of tools, etc., and still keep the price with a reasonable figure.

"The suggestion that the ball be a Chinese red and the top and bottom discs gray, this would mean that the disks would have to be molded separately and attached in another operation. In other words I think that a designer of molded items could well afford to give more consideration to the practical end and possibly save lots of time and effort."

"Snow Top's" New Container

Some time ago we suggested some adaptation of an unbreakable transparent package for a baby powder. This suggestion was largely inspired by the work which has been done in packaging with lithographed cellulose acetate containers.

The containers shown here are, we believe, the first of this type to be used in this industry. The white background furnished by the contents sets off to excellent advantage the blue and black decoration and the familiar "Snow Top" trade-mark. When you realize that Industrial Chemical is using this package for sampling purposes and then think of the more ordinary sample packages of material which arrive at your desk or laboratory, you are again impressed with the importance of packaging in the merchandising picture.

Containers of this type may be secured in rounds, squares, rectangles or various variations of these forms. They can be lithographed in any number of colors and any type of decoration. They are suitable for many of the dry products of this industry and it wouldn't surprise us to see some household line of drugs or some of the face or body powders make their appearance in some adaptation of this container.

Hand-Blown Perfume Bottles

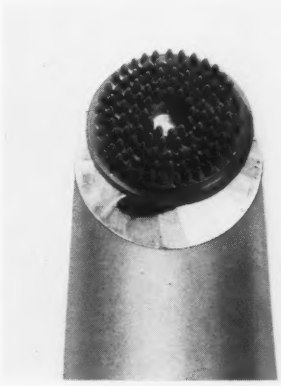
One prominent manufacturer of glass containers says that there is a definite return to hand-blown ware. He further states that the demand for this type of bottle has been very heavy of late bringing with it a pronounced increase in this part of his business. The obvious assumption, of course, is that the higher-priced perfumes are on the way back.

With tooth powders well on their returning way, and cod liver oil already arrived, it begins to look as if the best way to bring out a new product now-a-days is to revive a good old one.

The Winner!

The accompanying illustration is that of what we consider the finest brushless shave applicator which has yet hove into sight. It is carefully planned and well made, so that its looks alone inspire confidence in its probable performance. That this is so, was brought home to us in convincing fashion.

It happened that this was delivered while we were out and we returned to find all the boys with their ties off and their collars down, spreading the cream on in truly matinal fashion. They were having a grand time and were as pleased as kids with a new toy. And we are willing to bet that this touching little drama will be repeated again and again throughout the lengthand breadth of our fair land (it's those Election Day speeches we've been listening to) whenever this applicator is introduced on the market.



The originator of the idea for this applicator is Dr. Louis J. Stern of Post Institute, who already is well known in this industry through his association with "Delv." A. C. James & Co. developed the idea and worked out the technical details involved in applying it.

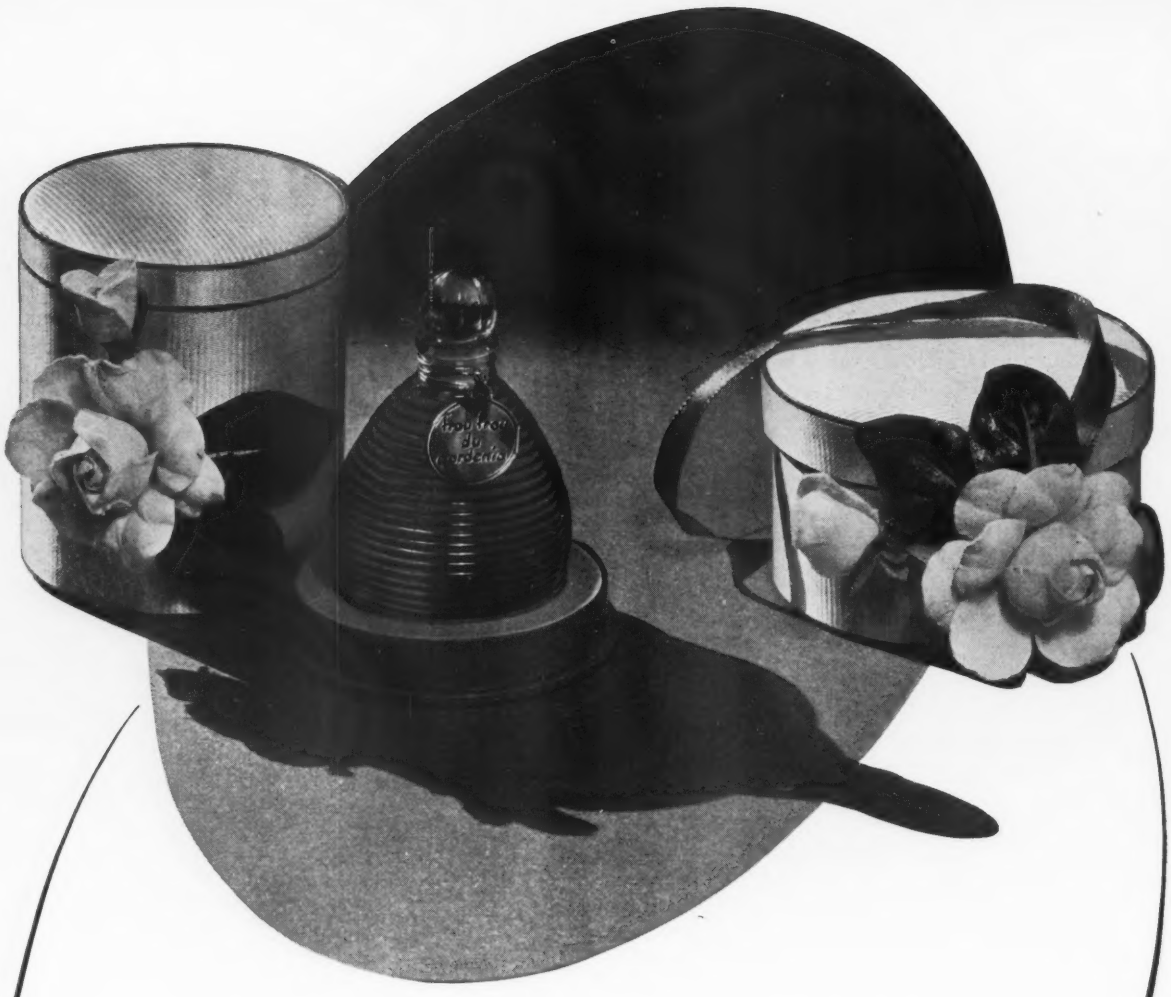
The applicator is of rubber and is made all in one piece. The base which is threaded to screw on to the neck of the tube, is of hard rubber, and the rake-like prongs on the surface are of soft rubber. You unscrew the tube cap, screw on the applicator, squeeze the tube, meanwhile rubbing the applicator back and forth over the whiskers. And behold, the cream is spread too nicely and evenly and you have had a very pleasant skin massage to boot.

Some kid, hey fun?

New Cream and Powder Jar Closure

By this time, you are probably aware that a new closure which seems to be made to order for cream and powder jars, has made its appearance up Boston way.

(*Continued on page 513*)



Lovely creations of delicate color harmony and charming form, these boxes by Karl Voss give that intimate feminine appeal so desirable in the beautiful Mary Dunhill packages.

KARL VOSS CORPORATION
DIVISION OF
SHOUP-OWENS, INC.
MANUFACTURERS OF PAPER BOXES
1100 · ADAMS STREET
HOBOKEN NEW JERSEY

Packaging Notes

(Continued from page 511)

It is, briefly, a hinged cap which screws on to any standard jar and which contains a special re-seal ring or liner, together with a transparent cellulose sheet mounted on another ring. Thus, when the hinge is raised, the prospective buyer of the product is given a full view of the contents. After the package has been purchased, the window may be removed by unscrewing the cap and the special re-seal ring is said to continue the seal perfectly. This may sound a bit complicated, but the whole thing is extremely simple in application and in addition to its merchandising possibilities, makes a good looking closure.

Color Selector

Quite the swellest thing of its kind we have ever seen is Lowe Paper's new "Color Selector." This is a spirally-bound, pocket-size booklet containing attractive combinations for planning carton colors. Twelve different combinations of color are suggested, each using a different shade of "Ridgelo" boxboard as the basic color. In each case, two colored inks are suggested as ideal colors for printing on that particular shade of board. Each combination has been chosen for its value in harmony or contrast to give a satisfactory result on that specific colored surface.

The booklet is conveniently arranged so that you cannot only judge the value of the suggested color combinations, but you can also experiment for yourself with various other combinations. It is fascinating to shift the colors around and visualize the attractiveness of finished cartons done in various color combinations.

Lowe Paper says that this booklet "is not intended as a manual for the experienced designer or carton manufacturer. It should prove useful to consumers and to creative workers in suggesting colors and boards of definite package value." Personally, we think that's putting it very modestly and we advise you to get a look at one before they're all snapped up.

Standardization of Glass Finishes

It is probable that few manufacturers using glass containers and their closures realize the full extent of their obligation to the men who fought for standardization as we have it today.

In a book just published, T. L. Taliaferro of the Phoenix Metal Cap Company, first chairman of the Standardization Committee of the Glass Container Association gives a revealing description of the early struggles of the committee to make the very real progress which is accepted so matter-of-factly today.

The major part of the book is devoted to a graphic description illustrating the radical improvements which have been made during the past six years in bottle finishes, particularly in regard to contour and fineness of pitch. It is enlivened by personal sketches of the various members of the committee which introduces a very pleasing human note into the technical discussion.

The user of glass containers and their closures will find this profusely illustrated book full of instructing and interesting information. Aside from standardization, he will learn many things of use to him today and he will conclude that the workers for standardization have made many previously unrecognized contributions to his convenience and comfort.

Capillary Applicator

Here's an ingenious idea for something unusual in an iodine, mercurochrome, or perfume applicator. The capillary applicator, as the illustration shows, consists of a hollow glass rod, or capillary tube, ground to a blunt point at the free end, and firmly set in the stopper at the opposite end. Close to the stopper is a small vent in the tube which permits free movement of the liquid within the tube by capillary attraction.

Due to this capillary action, the tube fills instantly when the end of the rod touches the liquid in the bottle. Furthermore the contents do not run out or drop off the rod until the point is touched to the spot where the application is wanted.

The idea is patented and the sponsor would like to hear from those who might be interested in using it. It has certain obvious advantages such as the fact that it holds more liquid than the ordinary applicator, the liquid cannot be "dropped" where it is not wanted, its effectiveness does not diminish as the contents of the bottle get low, and the liquid cannot spread over a greater area than is desired. Drop us a line if it has possibilities for one of your products.

"Pliofilm"

Goodyear Tire & Rubber Company is sponsoring the newest transparent wrapping material, "Pliofilm." As you might suspect, it is made of rubber, and this difference in chemical nature from the transparent wraps already on the market, accounts for several distinctive characteristics. It is moisture-proof from the inherent nature of the material and not because of surface treatment; it retains this moisture-proofness on wrinkling, creasing, etc.; it is not greatly affected by changes of humidity in the atmosphere. For the rest, it is "heat sealing," can be laminated, and costs about the same as other moisture-proof transparent wraps.

Economy Packages

Liggett is planning a full-fledged 5 & 10-cent counter which, if successful, will be extended to all "Rexall" stores. "Economy Packages" has been selected as the name for this new department.

FINE CONSTRUCTION
in paper boxes

by DOUGLAS YOUNG

Douglas Young, Inc.

FINE PAPER BOX MANUFACTURERS - DISPLAY BOX SPECIALISTS

ONE HUNDRED AND TEN KENYON AVENUE

Pawtucket, R. I.

Special Representative: W. C. YOUNG, New York City
Tel.: WIsconsin 7-8028 130 West 42nd St.

VICK CHEMICAL CO. is engaged in a huge advertising campaign as part of which the sample package illustrated is being distributed through the mails and in a house-to-house canvass.

A NON-REFILLABLE CAP for bottles has been designed which can not be removed without breaking the bottle and the cap. It pours a rapid stream directly into the glass. It is constructed with a breathing tube and two check valves which make refilling impossible.

NYAL CO. is sponsoring the new Agnes Sorel line which consists of cleansing cream, vanishing cream, facial freshener, and several popular shades of face powder, lipstick and rouge. The line has been beautifully packaged in gold and black color scheme with handsomely engraved and enamelled metal containers and closures adding an unusually rich note. (Courtesy Bridgeport Metal Goods Manufacturing Co.)

OWENS-ILLINOIS are offering dainty modernistic flaconettes designed for feminine appeal. There are two types, "Crystalette" and "Petite." Caps on the former are ivory, and on the latter jet black. Caps are of a newly molded material which is odorless and tasteless and will not affect the finest perfumes.

AMERICE new Day and Night Lipstick Kit has been produced by Marshall Field & Co. The Prevue mirror makes possible knowledge of how make-up will look under different lighting conditions. The Amber-Gold side tells you in electric light how you will look in daylight, and the Electric Blue side tells you in daylight how you will look in electric light.

An effective three-way tie-up between the trade name, trademark, and closure has been accomplished on the new package for CROWN LAVENDER SMELLING SALTS. The molded plastic cap is lavender and is made in the shape of a crown. Schieffelin & Co., New York, are distributors of this product for the Crown Perfumery Co., Ltd., London. Photo courtesy of Armstrong Cork & Insulation Co.

A SERVICE FOR BUYERS OF *Collapsible Tubes*

No container surpasses the collapsible tube in safety, convenience and in the matchless beauty of brilliant color combination.

Where your product is a cream, a cosmetic requiring a beautiful, well-designed container that will give individuality and personality to your product, let our design department cooperate with you in developing a striking container.

Our fifty years experience in the manufacture of collapsible tubes is cordially placed at your disposal.

WHITE METAL MFG. CO.
HOBOKEN, NEW JERSEY

COLLAPSIBLE TUBES *and* BOTTLE SPRINKLER TOPS

New York Office:	Chicago Office:	Detroit Office:
F. L. Butz	Charles A. Rindell, Inc.	R. M. Stevenson
393 Seventh Ave.	64 West Randolph St.	506 Donovan Bldg.

Quality Products, Prompt Service at the Right Price

Blunt end Pipette

When you seek de luxe, quality made closures, buy Glass Products make. Samples of any desired finish submitted without cost or obligation.

PATENTED

Ball end Pipette

GLASS PRODUCTS CO., Vineland, N. J.

New York	Atlanta, Ga.	Chicago, Ill.
L. A. Barber	Warren M. Curry	E. Marx & Co.
43 S. Portland Ave.	2895 Peachtree St.	308 W. Washington St.
Brooklyn, N. Y.		
St. Louis, Mo.	**San Francisco, Cal.**	**Seattle, Wash.**
L. L. Whitlow	Geo. Luckenbach	Containor Sales Co.
202 S. Main St.	241 Phelan Bldg.	329 Republic Bldg.

RIEGELINE

FOR

TRANSPARENCY

WITHOUT EXPENSE

Riegeline is a newly developed product, combining the economy of ordinary glassine with the transparency of more expensive wraps. It twists well, works rapidly on any wrapping machine, and will not expand in wet weather or shrink to the splitting stage in dry weather.

LIBERAL SAMPLES AND PRICES PROMPTLY FURNISHED

RIEGEL PAPER CORP.
342 Madison Avenue · New York

PERFUME BOTTLES

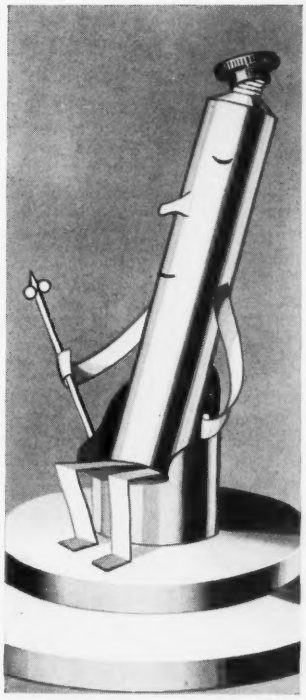
These naturally attractive, cut-glass type perfume bottles have been transformed into sparkling, gemlike and beautifully-colorful containers by a special process which guarantees you a permanent all-over color. These bottles are available in twelve lovely colors—six transparent and six opaque. Those with the molded closures may be obtained with or without applicators, in one, two and four-dram sizes. The model with the crystal top is equipped with an applicator and is supplied only in the one-dram size.

The scintillating color of these attractive bottles makes them unusually desirable as refill and dispensing bottles for perfumes. Send for a sample and see for yourself how attractive a colored bottle of this type may be and make your own tests with the permanency of the finish.

A. C. JAMES & CO., Inc.
99 HUDSON STREET NEW YORK, N. Y.

NATIONAL
COLLAPSIBLE TUBES

The EXALTED RULER



IF you want your package to be outstanding--a ruler--let us show you how.

We will gladly submit designs to help you in your packaging problems.

We make every effort to please, and our service is personalized.

We are packaging experts. Send for our catalog.

NATIONAL COLLAPSIBLE TUBE CO.
PROVIDENCE, R. I.

New York Office: 331 Madison Ave., Phone Murray Hill 2-0339
Pacific Coast Office: 6370 Franklin Ave., Hollywood, California

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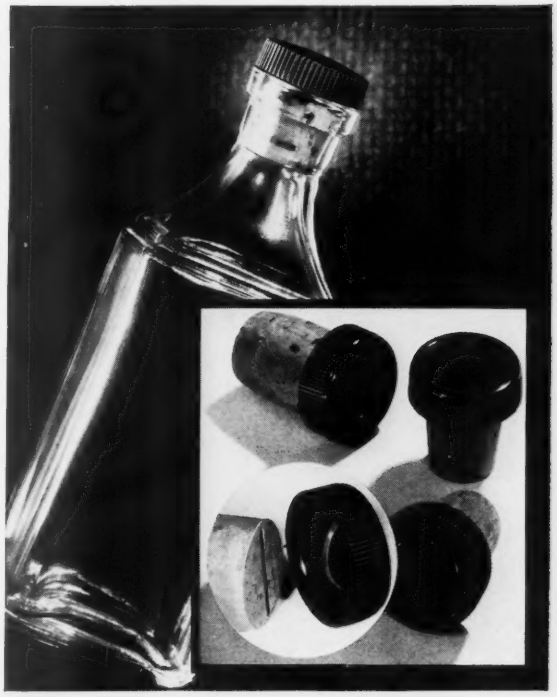
DODGE *Closures*

Designed to Guard the Integrity of the Contents



Can any other closure give you all four? **1.** *Perfect Seal of natural cork* **2.** *Smart Finish of a molded cap* **3.** *Easy Removal without corkscrew but with real "screw-action"* **4.** *Perfect Reseal with no fuss or bother*

These are the desired features in all closures, and you can get all of them only in the New Dodge Molded Flange Cork. The special fin, molded right inside the top, is the secret. It fits snugly into a slot cut in the cork. The fin gives "screw-action" in removing or replacing the cork. Molded top can't twist off. A perfect seal, and a perfect reseal. Send us one of your bottles to be fitted, and see for yourself.

DODGE CORK CO., INC., LANCASTER, PA.

BOTTLES and JARS

- A full line of bottles and jars always in stock for immediate delivery.
- Available in small or large quantities. *Jars: Clear, Opal or Colored, in all* standard sizes—any quantity from stock.
- Perfume bottles, standard moulds or *special design.*
- Lotion bottles—many very attractive designs for your immediate use.
- *Bottles and jars with and without* caps. Let us quote on any size order for any type of bottle or jar.

HAGERTY BROS. & CO.
10 PLATT ST., NEW YORK CITY

"FILMA-SEAL"
(the double seal of cap and film)

Do you have a sealing problem in your packaging?

We are prepared to prove that the GUTMANN C. T. Cap and "FILMA-SEAL" either in the clear FILM or Type J, (TAMPER-PROOF SEAL) is not only the solution of your problems but the most hermetic seal in your experience.

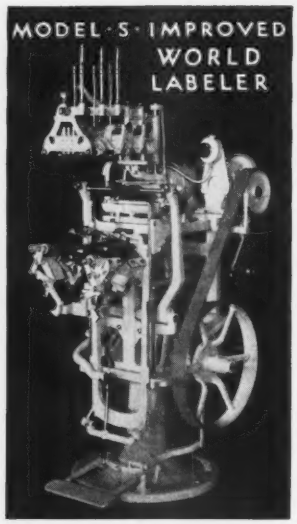
Prevents Leakage and Evaporation
Is a GUARD against COUNTERFEITING

Cap may be printed with a warning to purchaser not to accept if inner seal is broken or tampered with.

Used on many Nationally known advertised products

FERDINAND GUTMANN & CO.
BROOKLYN, N. Y.
Established 1890
U. S. Patent & Pats. Pending—Trade Marks Reg.

MODEL S IMPROVED WORLD LABELER



The most flexible labeling machine. Easily equipped for labeling any size bottle or jar. Many exclusive mechanical features, developed by manufacturing experience of more than 35 years.

Economic Machinery Company
WORCESTER, MASS.
Makers of Complete line of automatic and semi-automatic labelers.

LABELS
ENGRAVED AND EMBOSSED
Faithful Service Since 1881
JOHN HORN
837 Tenth Ave. New York

SHEFFIELD TUBES

The "Sheffield Process" (an exclusive manufacturing process devised by the New England Collapsible Tube Co.) extends from the preparation of the raw metal up to the actual decorating of the tube itself.

Each of the numerous steps in the manufacture of the tubes has been perfected, with the result that each small detail contributes its part to making the finished product a more durable, more attractive and more serviceable container for your product.

The volume of production, due to the demand for these tubes, makes it possible to market them at a cost no higher than that of ordinary tubes.

Further information and estimates upon request.

NEW ENGLAND COLLAPSIBLE TUBE CO.

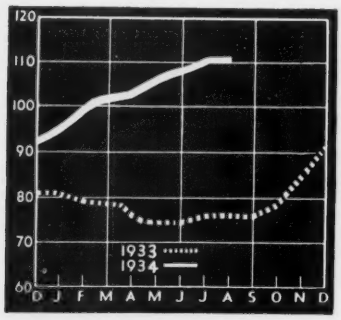
New York	New London	Chicago
500 Fifth Ave	Conn.	3132 S. Canal St.

ADVERTISEMENT—*This entire page is a paid advertisement.*

ALCOHOL NEWS

NOVEMBER ★ A Monthly Series of Technical Articles for Chemists and Executives ★ 1934

ETHYL ALCOHOL PRODUCTION



(moving twelve-month averages, 1931=100)

		1934	1933
PRODUCTION			
1000 proof gals.	Jan.-Aug.	106,611	86,341
	August	13,823	12,482
	July	13,702	11,684
SALES			
1000 proof gals.	Jan.-Aug.	92,126	67,186
	August	13,156	10,232
	July	12,693	9,345

INDUSTRIAL ALCOHOL SALES KEEP UP WITH INCREASED PRODUCTION

Production and sales of ethyl alcohol as reported by industrial manufacturers for August continued their recent gains by advancing into new high ground for the year. Above figures reveal that the gains in sales are readily absorbing the increased production of industrial alcohol, and the surplus of production over sales is considerably smaller this year to date than the same period last year.

Prices on the various industrial alcohol formulas released for the fourth quarter of 1934 showed few changes over the schedules for the preceding three months' period. Some slight revisions on prices of certain specially denatured alcohol formulas were necessitated by the shifting of denaturant costs.

Brisk demand from the anti-freeze trade was in evidence throughout the past month. Other large consumers of industrial alcohols, for the most part continued to make withdrawals for near-term requirements.

PEPPERMINT OIL EXPORTS GAIN

The foreign demand for American peppermint oil, one of the most important essential oils produced in this country, has enjoyed a considerable pickup since the beginning of the year according to a report from the Commerce Department. Exports of this flavoring material increased in value to $449,000 during the first eight months of 1934 compared with $375,000 in the same period of last year.

Although peppermint oil is produced in several foreign countries, the United States is the principal world source and the American product is recognized for its high quality and superior flavor.

This oil is used extensively in medicine and as flavoring for candies, tooth pastes, etc., as a denaturant in certain specially denatured alcohols and a large number of other products. It is one of the most useful and important of the volatile oils.

ABSOLUTE ETHYL ALCOHOL U.S.P. REPRESENTS PERFECTION OF ALCOHOL MANUFACTURE

A Product of Extreme Purity, Conforming to the U. S. P. Specifications, Ethyl Alcohol Absolute Is Commercially Available to All Users

The highest perfection in ethyl alcohol manufacture is achieved in Absolute Ethyl Alcohol U.S.P. As produced by the continuous distillation process of the U. S. Industrial Alcohol Co. it conforms to the most rigid standards of purity and uniformity, and is available in any commercial quantity from cases of pint bottles to tankcars.

In former years, and to a limited extent even at the present time, each laboratory produced its own absolute alcohol by treating 190 proof alcohol with calcium oxide (quick lime), and redistilling; a method both costly and uncertain in the quality of the resulting product.

This method was rendered obsolete by the development of the exclusive U. S. I. continuous process. Now, ethyl alcohol absolute made by U. S. I., in addition to conforming to all specifications of the U. S. Pharmacoepia, meets these supplemental specifications:

ACIDITY: Free acid as acetic, not more than 0.0015 gm. per 100 c.c.

CORROSION: Does not show rust on bright drum steel within 48 hours.

NON-VOLATILE MATTER: Not more than 0.0025 gm. per 100 c.c

ODOR: Free from foreign odors when tested at high or low proof.

PURITY: Not less than 99.87% ethyl alcohol by volume.

REDUCING SUBSTANCES: Not less than 25 minutes permanganate time.

SPECIFIC GRAVITY: At 15.6°/15.6° C.—not more than 0.7944.

This product, which is now available at only a moderate cost over the regular 95% pure ethyl alcohol, is extensively used in industrial research and analytical work where extreme purity and uniformity are essential. Hospitals employ it for many scientific and medical needs.

For industrial work requiring large quantities of alcohol free of water, anhydrous denatured alcohol is generally used. Further information concerning the uses and withdrawal of this product may be obtained by writing directly to U. S. I.

MEDICINAL AND TOILET GOODS INDUSTRIES SHOW IMPROVEMENT

Raw Material Imports Up

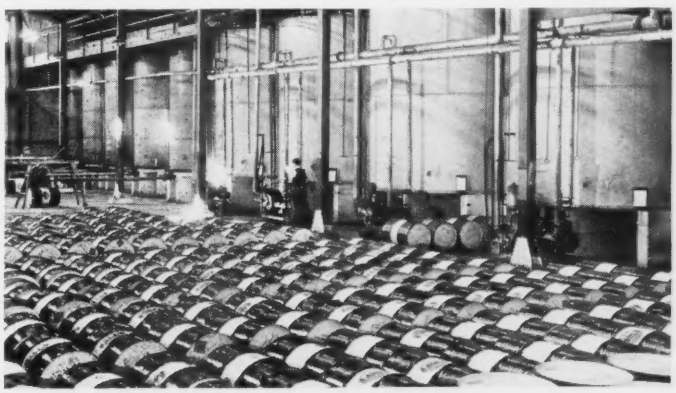
Increased production in the medicinal, cosmetic and toilet requisite industries has been evidenced since the first of the year by the increased imports of raw materials used in these industries according to advices from the U. S. Department of Commerce.

Perfume, cosmetics and other toilet preparations led this group of industries in the value of production for 1933 with an output valued at $108,233,000; followed by patent and proprietary packaged medicines valued at $104,626,600; pharmaceutical and galenical preparations, $94,063,600; patent or proprietary compounds, $33,402,400; and biological products, $19,597,000.

Perfume Materials Gain 98%

Increased activity among these industries since the beginning of 1934 is indicated by heavy imports of raw materials. Imports of perfume materials increased 98 per cent to a total value of $1,069,000 during the first eight months of the year compared with the same period of 1933; essential oils advanced 50 per cent to $2,859,200; and crude drugs, roots, herbs and leaves were up 53 per cent to a total value of $3,825,676.

In addition to the marked increase shown in dollar value, it was pointed out that quantities, where available, also showed substantial gains.



FILLING OF STANDARD CONTAINERS AT U. S. I.'S BALTIMORE PLANT: Filled directly from the large storage tanks shown in the background, the group of 54-gallon drums all contain PYRO—The Standard Anti-freeze. This entire section is used exclusively for handling completely denatured alcohol.

ADVERTISEMENT—*This entire page is a paid advertisement.*

OLIGODYNAMIC EFFECT OF SILVER IN INDUSTRIAL USE

Industrial sterilization by minute dosages of metallic silver has come into practical use within the past few years. An article on this phenomenon which is known as the oligodynamic effect of metals, appearing in Industrial & Engineering Chemistry for September, discusses the present applications of the method to the sterilization of water and other liquids.

The metal, in concentrations so small that they are practically undetectable by ordinary analysis, exercises remarkable bactericidal power but does not affect human beings and the higher organisms.

On the use of the method for treatment of alcohol, the author states: "In addition to its germicidal activity, ionic silver in concentrations as low as 0.015 mg. per litre has a definite effect on the acid-ester ratio of alcoholic liquids. This presumably catalytic action improves the odor and flavor of raw alcohol materially and is important to both perfumery and the beverage trades . . .

Unit for treating alcohol with silver (Oxy-Esterator).

"Alcohol solutions undergo a change when charged with ionic silver which is somewhat similar to aging. This technic has been successfully applied to the alcohol used in perfumes where the alcoholic odor is lessened by the treatment. . . ."

The oligodynamic treatment of numerous fermentation liquids is said to be effective in permanently preventing clouding. Vinegar, for example, so treated will be free from living microorganisms and be permanently bright after filtering.

The usefulness of the method has been demonstrated in many important fields. Water supplies can be completely sterilized without affecting healthfulness or flavor, and once properly dosed with silver they will remain sterile. It has been used commercially in Europe for a number of years and the first American installation was recently made for continuous treatment of water for a swimming pool in Washington, D. C.

A unique thumb-driven fan for drying finger nail polish is a novelty recently placed on the market. It is said to be more efficient and much more fascinating than the former method of waving the hands through the air.

UNUSUAL ALCOHOL DERIVED CHEMICALS

This is the fifth of a series of articles on some of the more unusual chemicals manufactured by the U. S. Industrial Chemical Co., Inc., using alcohol as the basic raw material.

Sodium Ethyl Oxalacetate

Sodium ethyl oxalacetate, another of the more unusual chemicals of alcohol origin, was developed by the U. S. Industrial Chemical Co., Inc., for the dyestuff and pharmaceutical industries.

It is the sodium derivative of oxalacetic ethyl ester and is now produced on a tonnage scale by U. S. I. by reacting pure ethyl acetate and ethyl oxalate with metallic sodium. The sodium ethyl oxalacetate produced by U. S. I. is quite stable and entirely suitable for uses where the ester might be employed.

Sodium ethyl oxalacetate has found growing employment in the production of Tartrazine and Pyrazolon dyestuffs. Its structure indicates the possibility of many organic couplings leading to whole new lines of products for which substantial use may be found when the characteristics and working properties are fully investigated.

A few of the suggested lines of endeavor and typical reactions are given below:

(1) Manufacture of dyes of the Tartrazine group.
(2) This ester adds on to ammonia and to many primary and secondary amines. The resultant products soon go over into the amines of oxalocitric acid lactone ester.
(3) If aldehydes are present when amines of certain types are condensed with oxalacetic ester, keto-pyrollidon carboxyllic acids are formed.
(4) In the presence of pyridine, ethyl oxalacetate and ethyl cyanacetate form tri-ethyl cyanaconitate.
(5) With hydrochloric acid, oxalacetic ester is converted into derivatives of alpha pyrone.
(6) Oxalacetic ester is unstable, and on heating to 150° C. for four hours oxalocitric acid lactone is formed. Dilute potassium carbonate precipitates the potassium salt of oxalacetic ester—this is stable.
(7) According to an abstract of an article by a recent investigator, oxalacetic acid is reduced by yeast to malic acid. (Chem. Abs. 25, 4898.)
(8) In the presence of pyridine or diethyl amine, 2 molecules of oxalacetic ester condense with one molecule of an acyclic aldehyde.
(9) Acetic anhydride and oxalacetic ester form acetoxyfumaric acid diethyl ester.
(10) Heated to 250-350° C., oxalacetic ester loses carbon monoxide and forms diethyl malonate. (British Patent 228, 863.)

TECHNICAL DEVELOPMENTS

A mixture of alcohol and lamp black which will not scratch the surface has been recommended as a polishing agent for automobile headlight reflectors. (Instructions state to rub from the bulb straight out and *not* to polish with a circular motion.) It is thought such a mixture might prove useful in polishing other similar surfaces.

U S I

A new mixing-machine with the body made of white acid-proof Porox is glazed inside and out. It is equipped with a direct driven motor agitator which can be easily and quickly removed for cleaning. It is said to be acid-proof, easily kept clean, and will not contaminate the finest products. It is available in 5 and 10 gallon capacities.

U S I

A method for facilitating the breakage of ampules at a desired point has recently been patented by a German concern. It involves weakening the ampule at such a point with a scratch and then coating the weakened point with lacquer or a paint and transparent material such as cellophane which is allowed to dry.

U S I

***x*-tolyl *x*-methyl glycerol ether** is an example of the aliphatic-aromatic double ethers of glycerol perfume fixatives recently patented by a German concern.

U S I

Vitamins, according to a recent foreign patent, may be prepared from vegetable products such as soy beans, wheat, lemons, etc., by dialyzing the cellular vegetable tissues at a temperature not over 40°, against an organic solvent such as alcohol, or water, which has been acidified with acetic or citric acid.

U S I

A new emulsifier, specially developed to make uniform addition of vitamin D concentrate to milk, is suitable for general laboratory use in similar processes. With a reservoir capacity of one quart, it is intended for continuous operation. All parts in contact with the liquids are of aluminum.

U S I

Face powder in plastic form for use in making refills for odd-sized vanity cases has been patented. It is intended to be sold in collapsible tubes and will set into hard cakes when exposed to the atmosphere.

U S I

Glyceryl monostearate and —ricinoleate, now being produced in this country are reported to be sufficiently pure to permit their use in cosmetic, drug and food preparations.

U S I

Aluminum beta-naphthol disulphonate, an antiseptic astringent, is among the newer cosmetic raw materials. Its principal use is said to be as a deodorant astringent. Used in alcoholic solution, it dries very rapidly and is claimed to be entirely harmless to vegetable fabrics.

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NEWS

People

John Uri Lloyd Honored

Dr. John Uri Lloyd, pharmacist, chemist, educator and author was honored at a special ceremony, October 9, at the Philadelphia College of Pharmacy and Science in recognition of his many and varied contributions to his chosen professions. To him was presented the Procter International Award in the form of a suitably inscribed gold watch.

This award is named in honor of William Procter, Jr., (1817-1874) a graduate of the Philadelphia College and long a member

JOHN URI LLOYD

of its faculty, and editor of its American Journal of Pharmacy.

The presentation of Dr. Lloyd for the award was made by Dean Charles H. LaWall and the award conferred by President Wilmer Krusen of the Philadelphia College. Dr. Lloyd responded with an informal address.

Preceding the award, Colonel Samuel P. Wetherill, Jr., chairman of the Philadelphia College Board of Trustees, delivered an address and the exercises were opened with a biographical sketch of William Procter, Jr., by Dr. Ivor Griffith, associate professor of pharmacy at the Philadelphia College.

Rosenthal Joins Dunhill

Herbert D. Rosenthal, formerly sales manager of Marie Earle, Inc., and the Rallet Corp., New York has been appointed general sales manager of Mary Dunhill, Inc., 11 E. 26 st., that city. Previously, he had been associated with Coty, Inc., from 1925 to 1931, when he was made assistant sales manager of Marly Perfumes. His next appointment was that with Marie Earle and Rallet.

Lambert Buys "Yankee"

Gerard B. Lambert, of "Listerine" fame and now chairman of the board of Gillette Safety Razor Co., who has owned and raced the America's Cup yacht "Vanitie" for several years, has purchased the sloop "Yankee" which gave the defender "Rainbow" a close battle for the right to meet the challenger, "Endeavor" in the international matches during September. The purchase price was not announced but it is understood to have been over $75,000.

Adkins Leaves Givaudan

W. H. Adkins has resigned his position as head of the purchasing department of Givaudan-Delawanna, Inc., New York, after having been associated with the firm for ten years. He has as yet made no connections but is devoting his time to renewing old acquaintances and planning the future.

Jacques Riedweg Visits Here

Jacques Riedweg, of L. Givaudan & Cie., Geneva and Paris, is on a visit to this country, making his headquarters with Givaudan-Delawanna, Inc., New York, American associate of his company. His itinerary while in this country includes Canada, the Middle West and the Pacific Coast.

P. C. Magnus Presides

Percy C. Magnus, president, Magnus, Mabee & Reynard, Inc., New York, and president, New York Board of Trade, presided at a meeting held November 1 at the Museum of Natural History, New York, under the auspices of the American Institute, at which the subject of "Economic Security" was discussed.

Vivaudou Returns to Cosmetics

Victor Vivaudou has returned to the cosmetic business in Hollywood where he is operating a company under the name Victor Vincent, Inc. He was the founder of the line which bears his name although he has not been associated with it for some time.

Root Back With Scovill

Roy Root, who resigned his position with the Scovill Manufacturing Co. at the first of this year to become associated with Coty, Inc., is returning to his former connection with the Scovill organization. Previous to his association with Coty, he had been for fifteen years New York representative for Scovill.

Bogert on the Nose

Dr. Marston T. Bogert, professor of organic chemistry, Columbia University and well known in this industry is the author of an article in the October issue of "The Scientific Monthly" entitled "Your Nose Knows."

Win Nobel Award

Drs. George R. Minot, William F. Murphy, and George H. Whipple have been awarded the Nobel prize in medicine for their contributions to the treatment of pernicious anemia through liver therapy.

Henriksen Opens Business

Arthur Henriksen, for many years vice-president and general manager of Norda Essential Oil & Chemical Co., whose resignation from that company was announced in our September issue, has organized a business under his own name, with offices at 30 Irving pl., New York. His new company will handle essential oils, aromatic

ARTHUR HENRIKSEN

chemicals, perfume specialties and allied products.

Mr. Henriksen has had an exceptionally wide experience in this field and during his many years with Norda, was responsible for a large share of that company's progress. He is a graduate of the Columbia College of Pharmacy, and of post-graduate work at Pratt Institute. He has been associated with such firms as Riker-Hegeman, V. Viaudou, Inc., Bauer & Black and J. R. Watkins Co., and before entering the essential oil field, was chief perfumer for the Palmolive Co., Milwaukee.

Bartons in New York

E. C. Barton, secretary and general manager of Compagnie Parento of Canada, Toronto, and Mrs. Barton were in New York during September for a holiday. Mr. Barton also spent several days at the company's croton-On-Hudson offices conferring with various members of the firm regarding plans for the future.

M. Ralph Berke Appointed

M. Ralph Berke, chief chemist of the Allied Chemical Co., Montreal, has been appointed managing director. He is well known to the trade having spent several years in various capacities with other firms before joining the Allied Chemical Co., pharmaceuticals and cosmetics.

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KIMPAK is a soft, resilient crepe wadding that comes in sheets, rolls and pads of various thickness. It is ideally suited for packing of bottled liquids, for it will absorb 16 times its weight in moisture, and it conforms to Post Office regulations in regard to shipping liquids or liquefying products by parcel post. KIMPAK is free of dirt and foreign substances. It affords an adequate protection for fine finishes, reduces possibility of shipping damage. It is easily applied. Saves time, labor and money in packing.

KIMPAK can now be had backed with glassine in a wide variety of colors. Manufacturers of cosmetics and products which must be attractively packaged will find this form of KIMPAK an especially fine one for their purposes.

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Arden Gets Divorce

Mrs. Florence Nightingale Graham Lewis (Elizabeth Arden) has gotten a divorce from Thomas J. Lewis, 15 years her husband and twelve years manager of the wholesale division of Elizabeth Arden,

ELIZABETH ARDEN

Inc. Miss Arden is quoted as saying, "My pride in the business, my idealism, caused the trouble between us . . . I found I was out on a limb, so I had to cut the limb off, do you see?"

Dunn Addresses Conference

The executive committee of the National Drug Trade Conference met in Washington October 26 to discuss revision of the Food and Drugs Act. In this connection, Charles Wesley Dunn, counsel for the American Pharmaceutical Association, addressed the following communication to Carson P. Frailey, president of the conference:

"I regret that I am unable to attend the October 26 meeting of the Executive Committee of the Conference, called to discuss the revision of the federal food and drugs act. My professional engagements here interfere. Moreover, I am not yet ready to enter into a conclusive discussion of the sort.

"Permit, me, however, to state now:

"(1) The Conference should take action, prior to January 1st, which shall square with the principle that an early constructive revision of this act is unquestionably in the public interest, a revision to effectuate the board purposes enunciated by the Department of Agriculture. Failure to take such action will be a disservice to the drug industry and a disregard of the public welfare.

"(2) The Conference should not endorse any bill of revision which fails to secure such a constructive revision. For example, such a bill as the Stephens-Black bill which is unacceptable because (a) it partially and inadequately satisfies the aforegoing purposes; (b) it contains no revision as to food in particular; and (c) it perpetuates glaring defects in the present act, such as the crippling "false and fraudulent" definition of misbranding with respect of therapeutic claims for drugs.

"(3) The Conference should sponsor a bill of revision which duly satisfies the aforegoing purposes, a bill which is fair alike to the general public and to the drug industry. Such a bill was the McCarren-Jenckes bill, which the Conference committee has endorsed. I propose to revise this bill in accord with the developments since its introduction. Then it will be submitted to the Conference.

"I very sincerely hope that the situation presented by this revision may be evolved to the point where the government and drug industry will stand upon a common platform. They should not be antagonists when they agree in purpose and principle. And their collaboration will mean a better and earlier revision.

"It has been suggested that this revision be referred to some other meeting of representative parts of the drug industry. I do not concur in that suggestion. The Conference is a representative organization. It only remains for the Conference to take due action."

Wagner Rejoins Walgreen

W. H. Wagner for the last four and one-half years general manager of the Independent Druggists' Alliance, has returned to the Walgreen Drug Co., Chicago.

Brown & Foster Join Hutchinson

Dr. Frederick W. Brown, for many years with Magnus, Mabee & Reynard, Inc., New York, is now with D. W. Hutchinson & Co., Inc., New York, as technical director.

A. B. Foster has also become connected with the company as sales manager.

Clarke Joins Phila. Wholesale

Ray S. Clarke has become associated with the Philadelphia Wholesale Drug Co. of this city as merchandising director.

Boyer Appoints Bowler

H. J. Bowler has become acting sales manager of Boyer, the Society Parfumeur, Chicago, succeeding the late Clyde Stone.

Strong, Cobb Appoints Sondern

Dr. Clarence W. Sondern has been appointed scientific director of Strong, Cobb & Company, Cleveland.

Dr. Sondern has been associated with the drug industry since 1928. He was research chemist with the Food & Drug Administration and held similar posts with E. R. Squibb & Sons and the Wm. S. Merrell Co.

Dr. Bliss Joins College

Doctor T. V. Neal, president of Howard College of Birmingham, Alabama, has announced the appointment of Doctor A. Richard Bliss, Jr., to the newly created

DR. A. R. BLISS, JR.

deanship of Pharmacy and professorship of pharmacology in that institution. Doctor Bliss assumed his duties October 1, 1934. He has been appointed also director of The Birmingham Research Laboratories.

Dr. Bliss, was appointed scientific consultant by the Board of Directors of the United Medicine Manufacturers of America, Inc., at their recent convention at The Waldorf-Astoria. Dr. Bliss is a member of the U. S. P. Committee on Revision.

Anne Marie Teeter

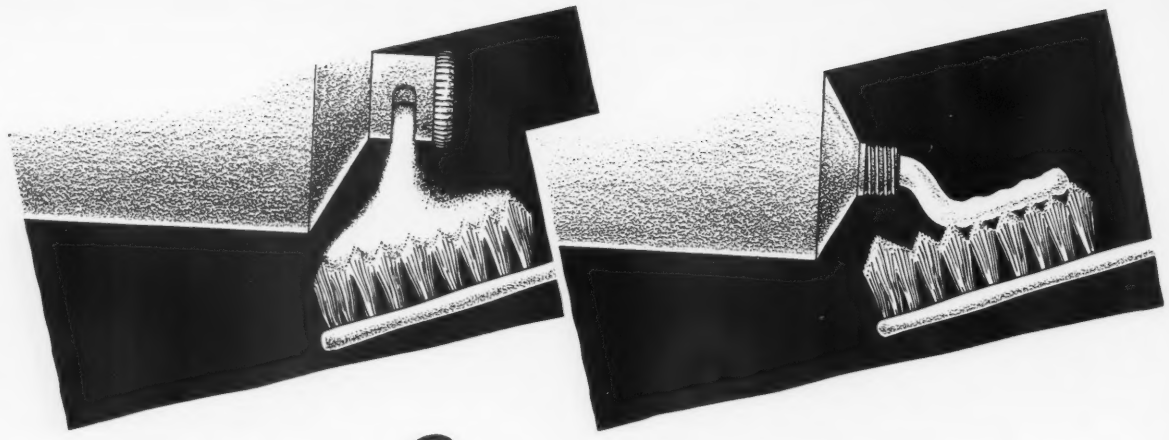
Anne Marie Teeter was born to Mr. and Mrs. Albert A. Teeter, October 16, at 12.30 in the morning. Some ten hours later, or about 10.30 of the same morning, Mr. Teeter brought his new camera into play and snapped an excellent picture of the new arrival in the arms of the nurse. This picture was given to friends of Mr. and Mrs. Teeter two days later. Mr. Teeter is treasurer of Charles Pfizer & Co.

Felton on Sales Trip

John D. Felton, Jr., has left New York on an extensive tour of New York State, Ohio and Michigan for Magnus, Mabee & Reynard, Inc., that city. His trip is the first move in an extensive sales program designed to meet the company's sharply increased volume of business.

Max Factor Expanding

Max Factor & Co., Inc., Los Angeles, is said to be planning a plant expenditure program involving the expenditure of $250,000.



As necessary in TOOTH POWDER as in TOOTH PASTE

CHEMISTS who have experimented and have had long experience with tooth paste or tooth powder state that **pure, mild, neutral** soap has certain definite qualities which give it an exceptional and necessary value in these products.

Neutral soap is not only a cleansing agent—it has an antiseptic value of great importance for an oral preparation. It is an excellent lubricant and absorbs the fatty substances without attacking teeth or gums. This reduction of surface tension allows less painful penetration of the interspaces.

When you choose the proper type of soap, consider these qualities because all are important in a dentifrice formula: color; taste; moisture content; mesh; titre; free sodium carbonate; alcohol residue; water residue and iodine value. The soap must, of course, contain no free alkali.

Powco Brand Neutral Powdered Soaps offer you a selective buying basis, adapted to your specific requirements and to that of the product you are manufacturing.

Let us discuss your soap requirements with you and suggest which one of our wide range of Neutral Powdered Soaps is best fitted for the products you are manufacturing or developing.

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Tested Quince Seed ● Powdered Neutral Soaps ● Concentrated Shaving Cream Base

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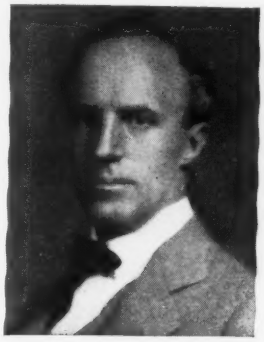
Associations

Dunn to Address Section

Charles Wesley Dunn will address the regular monthly luncheon meeting of the Drug section of the New York Board of Trade to be held at the Hotel McAlpin, November 27. His subject will be "The Coordination of Interests in the Drug



CHARLES WESLEY DUNN

Trade on Food and Drug Legislation." Samuel Fraser chairman of the section, will preside, and Thomas R. Farrell, editor of THE DRUG & COSMETIC INDUSTRY, will conduct the meeting and introduce the guest speaker.

Arthur Brisbane, editor, Hearst Newspapers, was speaker at the October meeting held October 30.

N. A. R. D. in Washington

Announcement was made November 1 from the headquarters of the National Association of Retail Druggists, Chicago, of the appointment of Rowland Jones, Jr., of Gettysburg, South Dakota, as new Washington Representative of the Association. Mr. Jones will take charge of the N. A. R. D. Washington office, November 11.

At the same time, it was also announced that J. A. O. Perus, attorney and former governor of the state of Minnesota, has been selected as Legal Advisor of the Association.

Alvarez Heads Salesmen

John Alvarez of Grasselli Chemical Co. has been selected by the nominating committee of the Salesmen's Assn., to head the organization during the coming year. Jack Leppart of Columbia Alkali Wks., has been nominated for the position of vice president, with Charles Lichtenberg of Commercial Solvents, nominated for secretary and Walter Murphy of *Chemical Industries*, as treasurer.

Nominees for the three vacancies on the executive board are as follows:—Samuel Kline, Calco Chemical Co.; Frank Byrne, Monsanto Chemical Co.; and Fred Koch, Dow Chemical Co.

Pkg. Machinery Institute

Members of the Packaging Machinery Manufacturers Institute held their annual convention at the Edgewater Beath hotel, Chicago, on October 12. H. H. Leonard, vice-president of the Consolidated Packaging Machinery Corp., Buffalo, was elected president of the institute for the ensuing year. H. K. Becker, vice-president and general manager, Peters Machinery Co., Chicago, and Roger L. Putnam, president, Packaging Machinery Co., Springfield, Mass., were named first and second vice-presidents. Miss Helen Stratton, New York, was chosen as secretary and treasurer.

Divisional vice-presidents and the divisions of the Institute which they head are J. L. Whitehurst, president, Burt Machinery Co., Baltimore, can labeling and casing machine; J. S. Stokes, president, Stokes & Smith Co., Philadelphia, paper box machinery; E. A. Metz, vice-president, F. X. Hooper Co., Glenarn, Md., corrugated box; E. E. Finch, vice-president, Karl Kiefer Machinery Co., Cincinnati, liquid filling; Kendall Doble, vice-president, *Pneumatic Scale Corp., Quincy, Mass.*, dry filling; and G. Prescott Fuller, Dexter *Folder Co., New York, wire stitching.*

NRA Activities

Pharmaceutical Code Approved

The National Recovery Administration has approved a code of fair competition for the pharmaceutical and biological manufacturing industry which becomes effective November 5.

This code establishes a maximum work-week of forty hours and a minimum wage of 35 cents an hour. It is expected to reduce working hours in the industry about 10 per cent and slightly to increase minimum weekly earnings above the 1929 rates. Pharmacists, research and scientific workers, chemists and executives who receive $35 or more weekly are exempted from the maximum-hour provision, as also are outside salesmen. Apprentices would receive not less than 28 cents an hour.

A maximum forty-five-hour week is prescribed for branch house and shipping service employees. If a wholesale drug code is approved with other maximum hours for these employees, they are to be governed by the wholesale drug code's maximum-hour provisions.

The code prohibits child labor. It sets up a fine-member code authority. In addition, up to three administration representatives may be named by the National Recovery Administration. Although the code contains no trade practice provisions, the code authority is directed to study the possible addition of such provisions and to make recommendations for later inclusion, if found necessary.

The approval order is conditional and requires that the code authority shall furnish to the National Recovery Administration within four months statistics covering the past twelve months, showing total number of employees, total monthly or weekly payroll, total man-hours, and the number of workers in each wage group.

Soap's Place in Codes

The classification of soaps under the retail codes was the subject of discussion before the National Recovery Administration in Washington on October 23.

Representatives of the grocery industry claimed that 88 per cent of "Palmolive's" sale and 90 per cent of "Lifebuoy" and "Lux" is through grocery outlets.

W. Bruce Philip, counsel for the National Association of Retail Druggists, declared that to take soap out of the drug code would force down the price until it would be impossible for druggists to handle the product without selling below cost.

Wheeler Sammons, of the National Retail Drug Code Authority, opened the afternoon session with the warning that, if soap is removed from the jurisdiction of the drug code, it will become "the worst football in the history of the trade," with the price forced down to impossible levels by cutthroat competition between the drug and grocery trades.

Cosmetic Code

The Trade Practice Compliance Committee of the Code Authority for the Perfume, Cosmetics and Other Toilet Preparations Industry met October 15 in its first compliance action under the Cosmetic Code, and took initial steps to enforce the identity of manufacturers' demonstrators in retail stores.

Some two weeks ago, concerted action was taken by the filing of a complaint against eighteen representative cosmetic manufacturers who maintained demonstrators in a New York City department store. The Code itself requires that the demonstrators identity should be clearly and openly disclosed to the public as being an employee or agent of the manufacturer.

The Code Authority recently adopted a regulation on this particular section of the code, which required that the identity of the demonstrator should be indicated on a badge worn by the demonstrator in such a manner and place on the person, as to be clearly visible at all times. The same regulation requires the badge to bear not only the name of the member of the industry, but either the word "demonstrator" or the word "representative," and that the lettering should be of such a size as to be legible to a customer under usual sales conditions.

All of the eighteen members of the industry against whom the complaint was filed, answered the complaint, and it was reported at the meeting, by the executives

LILAC No. 271

the oil $8.00 per lb.

LILAC No. 323

the oil $3.00 per lb.

new — good!

Perfume	---	16 ozs. or more to the gallon
Toilet Water	---	2 ozs. or more to the gallon
Cream	---	8 ozs. to one hundred pounds
Powder	---	8 ozs. to 12 ozs. to 100 pounds
Talc	---	4 ozs. to 100 pounds
Lotions	---	½ oz. or more to the gallon

Send for samples of oils and try them in your own way

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Factory, Elizabeth, N. J.

of the respondent companies and also by the inspectors of the Cosmetic Code Authority, that all of the respondents except two, are now complying with the code, and the particular regulation in the particular store. The other two respondents agreed to comply as quickly as the badges could be procured and satisfied the committee that the badges had been ordered and were now in process of manufacture.

It has been reported that some retail merchants had objected to the badges, and had attempted an ineffectual compliance by displaying signs on counters and showcases. The purpose of the provision is for the protection of the customer, that she may know the sales person with whom she deals is an employee of the particular manufacturer, and therefore, a sign displayed in a department employing more than one sales-clerk could not accomplish the object of identification.

Coty Charges Morie

Morie, Inc., New York, perfumes, has been charged by Coty, Inc., with violation of the Cosmetic Code. The specific violation is claimed to be of Article VII, Section 6 (c) of the Code which reads:

"No member of the industry shall in selling or advertising his merchandise, offer such merchandise as copies, blends, reproductions or imitations of another member of the industry where the name or brand of such other member of the industry is used without his consent."

L. G. Bernstein, of Coty, Inc., brought the complaint before the Commercial Frauds Court. He charged violation of the Schakno Bill which is the New York State adoption of the National Recovery Act.

The defendant is charged with having sold reputed "reproductions" of Coty's L'Origan, L'Aimant and Emeraude Perfumes to a retail outlet.

Governmental

Armand Co. Appeals

On October 8 the Armand Co. filed a petition with the United States Circuit Court of Appeals, in New York City, to review the Federal Trade Commission's order against it.

This order issued on January 27, 1933. It commands the company to desist from making agreements with dealers to fix resale prices for Armand products or to prevent their resale to price cutters.

Mr. Charles Wesley Dunn, Counsel for the Armand Co., makes this statement:

"The Armand Case was before the Federal Trade Commission from 1923 to 1929. By it the Commission sought to prevent the company from carrying out its well-known policy of resale price protection. Finally in January, 1933, the Commission ordered the company to stop making agreements with its customers to fix resale prices for its products or to prevent their resale to price cutters.

"The company denies that it made any such agreement or that there is any evidence in this case supporting the Commission's contention that it did so.

"But the company delayed filing a petition for a court review and reversal of this order in the hope that there would be code action under the NRA that would make this expensive law suit unnecessary.

"However it is now clear that there will be no code action that will support the Armand policy of resale profit protection. The NRA rejected any provision in the cosmetic code permitting resale price agreements by the manufacturer. And the retail druggist code contains no protection of his profit. At best it merely seeks to prevent resale price loss.

"Therefore because the Armand Co. denies that it made the agreements prohibited by the Commission; because it desires to vindicate itself accordingly; because it wants full freedom to exercise its profit protection policy in the interest of its retail druggist customers whose friendly hands built and support its business; and because it also wants to preserve a similar privilege to all manufacturers,—it will use every legal recourse to set this order aside.

"This case presents very important questions of resale price protection law. It may take its place alongside the *Colgate* and *Beech-Nut* cases as a leading case upon that law. And Carl Weeks is rendering a genuine service of large benefit to the drug trade of the country in so courageously and unceasingly fighting for its profit protection."

ADDISON MIZE, of the Snowden-Mize Co., Atchison, Kansas, and Mrs. Mize, were on their honeymoon while in attendance at the Federal Wholesale Druggists Association convention in Providence, R. I. They very kindly posed for us.

Cosmetic Tax Assessments

Internal revenue inspectors are busy checking up on the Federal excise tax which is levied on cosmetics. The particular form of checking is causing considerable concern in the industry is that these inspectors are objecting to the manufacturing subsidiaries which many manufacturers have formed to reduce the amount of the tax which they pay. By forming manufacturing subsidiaries, cosmetic manufacturers have been able to reduce their taxes to 10 per cent of the sum of the cost of manufacturing plus a small manufacturing profit. Thus it will be seen that they are avoiding paying this ten per cent on the sales and advertising costs and other expenses which must be included in the price at which the manufacturer sells the goods to the wholesaler or retailer.

The inspectors, however, do not recognize this as proper under the law. They claim that these subsidiaries cannot be used to reduce the amount of tax to be paid. Therefore, these inspectors have assessed many companies for heavy additional taxes which must be paid if penalty and interest are to be avoided.

Bourjois is reported to have been thus assessed and their attorney, Mark Isner, is fighting the assessment in the belief that he has a clear-cut case against the government. At the present time the outcome of whether or not the additional tax must be paid by all companies who have thus attempted to reduce their taxation by this method depends upon the outcome of this suit.

Manufacturers who are assessed for additional taxation in this manner must pay

IN THE LAST ANALYSIS, THE SALES OF YOUR PRODUCT HINGE ON THE QUALITY OF ITS

BASIC INGREDIENTS

Almond Meal
Balsam Tolu
Benzoin Gum
Chalk (precipitated)
Chinese Shavings
Cuttle Fish Bone
FACTOLAC
Gum Arabic
Gum Tragacanth
HENNA
Henasoap Shampoo
Indian Gum (Karaya)
Talcum
Irish Moss
Lavender Flowers
Olibanum
Orris Root
Powdered White Soap

HOPKINS' NEUTRAL WHITE SOAP

Powdered, granulated Contains NO soap bark, free alkali, free acid or heavy metals. Totally free of rosin, sugar and foreign matter.

QUINCE SEED

Choice qualities rich in mucilaginous content.

In your preparation, the chain of its ingredients is only as strong as its weakest link. Neither clever merchandising nor effective advertising can replace the product's job of "delivering the goods." For more than 40 years, America's outstanding toiletry successes have relied on Hopkins' Basic Ingredients for the tested, full-strength, true-to-name quality which has helped elevate them to their present position of leadership.

FREE ON REQUEST

SAMPLES, PRICES and PRICE LISTS OF HOPKINS' CRUDE BOTANICAL DRUGS and LABORATORY BASIC SPECIALTIES

"Quality is remembered long after price is forgotten"

J.L.HOPKINS & COMPANY 220 Broadway NEW YORK

Imported Chemical and Flavor Specialties

PRODUCTS OF
the well-known firm of

POLAK & SCHWARZ's Essence-Fabrieken

Zaandam, Holland

Aromatic Chemicals

Alcohols 8 to 10 incl.
Aldehydes 8 to 18 incl.
Amyl Cinnamic Aldehyde
Benzyl Iso Eugenol
Benzyl Acetate
Benzyl Alcohol
Benzyl Cinnamate
Benzyl Valerianate
Cinnamyl Acetate
Cinnamyl Formate
Cinnamyl Propionate
Cinnamyl Valerianate
Dimethyl Benzyl Carbinol
Ethyl Myristinate
Eugenol
Iso Eugenol
Methyl Heptin Carbonate
Phenyl Acetic Acid
Phenyl Acetaldehyde
Styralyl Acetate
Methylethyl Phenylethyl Glycidate
Phenylethyl Methylethyl Carbinol

Flavor Specialties

Anethol
Beniton
Benzaldehyde
Bitter Almond Oil
Esters
Ethers
Carvol
Cognac Green
Coriander Oil
Limes
Methyl Anthranilate
Orange, Sweet
Orange, Bitter
Prune Extract
Rye blending oil
Liqueur Concentrates
Lemon
Black Currant, Concentrate
London Fruit Cake Flavors

SPACE DOES NOT PERMIT A FULL LIST—CATALOG AND SAMPLES SUBMITTED ON REQUEST

Exclusive United States Representative:

BUDD
Aromatic Chemical Co. Inc.
667 WASHINGTON STREET NEW YORK, N. Y.

it in the time specified if they wish to avoid penalties and interest. However, if the decision is unfavorable to the government, these manufacturers will get the money back.

Maine Cosmetic Law

Associated Manufacturers of Toilet Articles has issued the following bulletin regarding the Maine Cosmetic Law, signed by Hugo Mock, counsel:

"You will recall that a hearing on the constitutionality of the Maine Cosmetic Law was held in Portland, Maine, on July 27th, 1934, before a Statutory Court of three Federal judges, Judges Peters, Letts, and Wilson.

"It was agreed at this hearing that the briefs on behalf of Liggett and Bourjois would be filed by September 1st, 1934, and that reply briefs by the Attorney-General of the State of Maine would be filed on October 1st, 1934, and that the plaintiffs would have until October 10th, 1934, to file reply briefs.

"At the request of the Attorney-General of the State of Maine, these times have been extended till November 15th, 1934, at which time all briefs of both parties should be filed.

"It is therefore probable that no decision in the matter will be reached by the court before January 1st, 1935.

"The Legislature in Maine convenes early in 1935 and it is thought that with the assistance of the beauty trades of the State of Maine and the Pharmaceutical Associations of the State of Maine, a concerted effort should be made by the Associated Manufacturers of Toilet Articles to have Chapter 278 of the Laws of 1933 repealed.

"It is believed that the people of the State of Maine by this time realize that Chapter 278 of the Laws of 1933 was an unfair, inequitable, and unwise piece of legislation, and that sentiment exists favorable to such repeal."

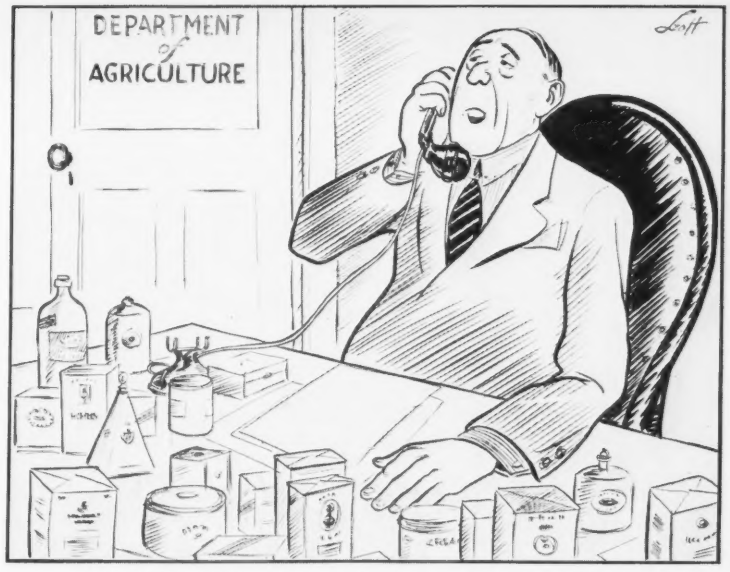
Trade Name List

A new list of tradenames in use by member firms of the American Drug Manufacturers' Association and the American Pharmaceutical Manufacturers' Association has been prepared under the auspices of the Patent and Trade-Mark Committees of the respective groups.

The purpose of the compilation is to furnish information in the preliminary consideration of new tradenames. It has been revised to August 1, 1934.

It is the desire of the Associations that the booklet receive the widest possible distribution, not only among members, but among all others interested in this important field, including firms and individuals identified with allied organizations, trade-mark attorneys and association trade-mark bureaus.

Copies may be obtained from Carson P. Frailey, Executive Vice-President and Secretary, American Drug Manufacturers' Association, Albee Building, Washington, D. C., or from Clarence W. Warner, Secretary, American Pharmaceutical Manufacturers' Association, care of The Maltbie Chemical Company, 246-250 High Street, Newark, New Jersey. The price is fifty cents each.



ALL RIGHT Darling, I'll Bring Home a Bottle of Lydia Pinkham

Companies

Sterling Buys Watkins

Negotiations have been completed by Sterling Products, Inc., Wheeling, W. Va., for acquisition of the business of the R. L. Watkins Co., Cleveland, Ohio. The deal, which had been in progress practically since the death of R. L. Watkins almost five months ago, was on the basis of an exchange of stock.

Sterling Products gave 73,600 shares of its common stock for all the capital stock of the Watkins company. This stock was acquired in the markets over the past few months and at the latest quotation has an aggregate value of more than $4,400,000. Sterling Products informed the New York Stock Exchange October 24 that it had issued the 73,600 shares of stock which it had acquired for the Watkins deal.

Felton in Phila.

Felton Chemical Co., Brooklyn, has opened a branch in Philadelphia, located at 200 South 12th St. The Philadelphia branch is in charge of H. F. Dresel, who had been connected with Felton's New York sales organization.

General Products Labs.

General Products Laboratories, Columbus, cosmetics has established its plant at 135 E. Spring st., that city. William P. Faundree is general manager and chief chemist, and Herbert Stocklin is production superintendent.

Winthrop Wins Contest

The Winthrop Chemical Co. and its associate, H. A. Metz Laboratories, won the 1934 "Direct Mail Leaders" contest sponsored by the Direct Mail Advertising Association, Inc.

The Winthrop-Metz campaign represented over 10,000,000 individual pieces of printed matter. Some of the advertising featured long-established products such as Luminal, Pyramidon, Novocain and Neosalvarsan, while others discussed newer preparations like Novaldin, Myorgal, Omnadin and Synodal.

Grove Labs. Raises Price

Grove Laboratories, Inc., St. Louis, has announced an increase in the retail price of its Laxative Bromo Quinine from 30 cents to 35 cents, and an increase in the list price from $2.40 to $2.80 per dozen.

Benkert Obtains Agency

An exclusive agency for the sale of cube root and its derivatives has been granted William Benkert & Co., Inc., New York, by William J. Dennis. The company states that Mr. Dennis is the holder of U. S. patent re-issue 18667 covering the use of cube root (lonchocarpus nicou) in any form as an insecticide and vermifuge.

Florasynth Appoints Schram

Florasynth Laboratories, New York, has appointed William S. Schram, as its Middle West representative. He is located at 10 West Kinzie st., Chicago.

Beauty Labs. Formed

Beauty Laboratories, Inc., has been incorporated in New York to engage in the cosmetic business. E. Reich, 125 E. 41 st., that city, was the incorporator.

"Pattinsons"

Hydrate of Magnesia

(*Magnesium Hydroxide*)

for

MILK OF MAGNESIA TOOTH POWDERS

A fully hydrated oxide of magnesia
Brilliantly white—finely ground
A powder—light, dry and fluffy
Exceptional uniformity and
Chemical purity

"Pattinsons" Hydrate of Magnesia blends easily with the standard tooth powder ingredients. A small percentage added to your formula will give it desirable antacid properties. Write for a sample.

SCHOFIELD-DONALD CO., INC.

154 NASSAU STREET NEW YORK

TEGIN *in Creams* PREVENTS WATER SEPARATION *caused by* FREEZING

Most stearic acid creams show separation of water after freezing. You will have absolute protection against this common difficulty when using only 2 to 3% TEGIN.

May we send you a sample to test in your next batch?

AS PRESERVATIVES AND ANTISEPTICS

Use NIPAGIN M and NIPASOL M

Recommended for their high efficiency in agar emulsions, gum solutions, eye washes, hair waving preparations, vaginal douches, vegetable oil emulsions, skin creams, and in all products which require an antiseptic or preservative. Samples and complete particulars will be sent upon request.

Th. Goldschmidt Corp.

70 Pine Street New York

Metal Package Merges with National Can

The Metal Package Corp., a subsidiary of the McKeesport Tin Plate Company, has consolidated its interests with those of the National Can Company, Boston. The Boston concern, which was established in 1901, will hereafter be conducted as a division of the Metal Package Corp. which now operates plants at Baltimore, Brooklyn, New York, Chicago, and Hamilton, Ohio.

Parento Appoints Brown

Compagnie Parento, Inc., New York, announces the appointment of H. E. Brown as its new Detroit agent. He is located at 7376 Grand River ave., that city.

Barrett-Mueller Co. Formed

Barrett-Mueller Co. has been organized with offices at 11 East 36 st., New York, to act as sales agents for cosmetic lines. Organizers of the company are Robert B. Barrett, William H. Cherry, and Wilbert J. Mueller.

Paramount Labs. Formed

Paramount Laboratories has been organized with offices and plant at 361 Ontario st., Chicago, to manufacture cosmetics. Organizers are Ted Keler, J. M. Aikin, and F. E. Shudnow.

Revson's Service

R. F. Revson Co., New York, is offering a unique type of raw material service in the way of supplying manufacturers with the newer cosmetic materials in small quantities for experimental purposes. The value of this service has been widely recognized and is being extended by the Revson company.

Chiris & Dhumez Merge

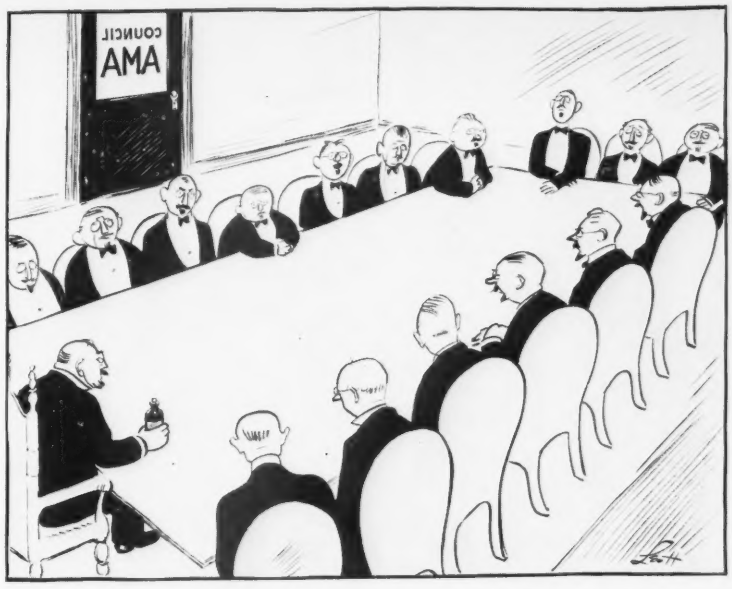
The Antoine Chiris Company, Grasse, France and Pierre Dhumez & Co., Vallauris, France, have combined, according to a report from France. The report adds that Pierre Dhumez has become a director of the new company and is now located in the Paris office. At the time this is printed, no plans have been announced concerning the effects of this merger upon the American houses representing these companies.

Weinman Drug Co.

Weinman Drug Co. has been formed in Brooklyn, N. Y. with capital of $5000 to do business in pharmaceutical supplies. George Feurstein, 26 Court st., filed the papers.

Point Products

Point Products, Inc., New York, has been formed as a cosmetic business. A. G. Grayzel, 277 Broadway, filed the papers.



I Never Did Like Viosterol, Anyway

Lucien Permanent Wave

Andre Lucien, 122 E. 42 st., New York, has announced a new rapid and unique method of permanent waving, machineless and heatless. The time required for a complete wave by the method is but 80 minutes and the cost $5.

Madame Tourneur Reorganized

Madame Tourneur, New York, cosmetics, has been reorganized and new offices have been opened at 136 E. 57 st., that city. Helen Neary heads the new company.

New Products

NEW ORASOL

Pine Bros., Inc., Philadelphia, has announced that a new and improved flavor has been embodied in "Orasol" tablets without impairing their antiseptic qualities.

COUGH SAVERS

Life Savers, Inc., Portchester, N. Y., is marketing a new item in its line, "Cough Savers."

PYRETHRUM OINTMENT

Upsher Smith Co., Minneapolis, is marketing a new product known as Pyrethrum Ointment-Upsher Smith, which is recommended in the treatment of scabies and other common ailments affecting the skin.

MERRELL OFFERS VACCINE

The Wm. S. Merrell Co., Cincinnati, is planning the commercial production of vaccine for the prevention of poliomyelitis. The new vaccine discovered by Dr. John A. Kolmer, Philadelphia, will be manufactured in the Merrell biological laboratories, Reading, Ohio.

Sodium ricinoleate is used in the preparation of the Kolmer poliomyelitis vaccine. This compound has been manufactured and distributed for some time by the William S. Merrell Company, which is sole licensee under the patents covering the product.

TESCO PRODUCTS

Technical Supply Co. has been organized in Provo, Utah, by George A. Startup, to manufacture cosmetics. The products will be marketed under the name "Tesco."

FITCH SPECIALTIES

American Chemical Products Co. has been operating in Des Moines, Ia., as a subsidiary of the F. W. Fitch Co. manufacturing fly sprays, waxes, cleaning compounds, etc. Lucius Fitch is president, and R. H. Young, secretary-treasurer of the company.

MELARD TOOTH POWDER

Stafford-Miller Co., Brooklyn, N. Y., is marketing a new tooth powder under the name "Melard."

A. D. A. Rejects

MERCITAN

Mercitan, manufactured by L. D. Caulk Co., Milford, Del., because a statement of composition does not appear on the labels; because no tests to determine the composition of the products as they reach the dentist are furnished; because they are advertised with unwarranted therapeutic claims; because the presence of potentially toxic substances is not declared; because the name is irrational and does not express the composition of the product; and because Mercitan cream is an unnecessarily complex and shot-gun mixture, the use of which cannot be considered to be in the

EMBODYING

the Perfection

THAT APPEALS TO WOMEN . .

BEAUTIFUL in form, color, crystalline radiance – delicate vehicles of lovely perfume—SOLVAY SNOWFLAKE CRYSTALS makes bathing more beneficial to the skin by imparting to bath water a luxurious softness. In every detail that wins the favor of women, modern bath crystals made with SOLVAY SNOWFLAKE CRYSTALS are unsurpassed. The pleasing qualities it adds to the bath assure steady repeat sales.

SNOWFLAKE CRYSTALS also stands high in the favor of bath crystal manufacturers because of the merchandising and selling qualities it possesses. SNOWFLAKE CRYSTALS is an ideal carrier of perfume and color and is especially appropriate for display in modern containers and transparent packaging material.

Let your business benefit from the sales-making attractiveness of this ideal bath-crystal base. Write today to Dept. B-5 for prices and full information.

SOLVAY SALES CORPORATION

Alkalies and Chemical Products Manufactured by The Solvay Process Company

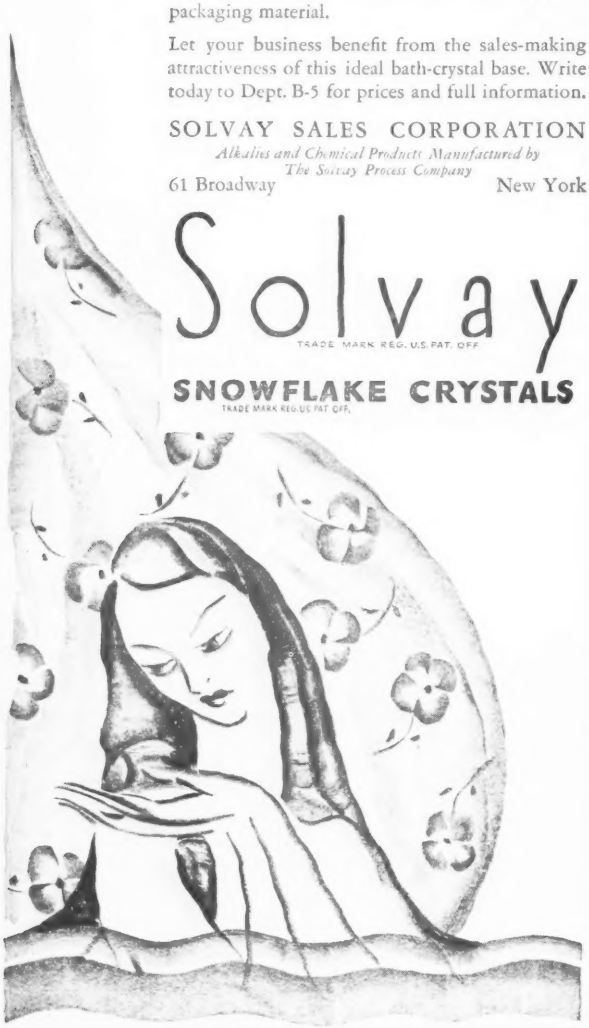
61 Broadway New York

Solvay

TRADE MARK REG. U.S. PAT. OFF.

SNOWFLAKE CRYSTALS

TRADE MARK REG. U.S. PAT. OFF.



THANKSGIVING

- We are thankful for your patronage.
- In supplying you with the highest quality products—products prime in condition, uniform, and of a purity that only the most rigid testing can assure, we hope you are as thankful as we are.
- In the success of your business it is our sincere desire to always furnish ingredients that will help develop your business—for as your business develops, we know ours will.

OUR SALESMEN THANK YOU, TOO!

Purveyors of QUALITY

Natural Essential Oils
Special Perfume Oils
Balsams
Aromatic Chemicals
Paragon Olive Oil
Basic Perfume and Flavoring Materials

MAGNUS, MABEE & REYNARD, INC.

Essential Oils

32 CLIFF ST., NEW YORK

Chicago, Philadelphia, Atlanta, Boston

interest of the dental profession and the public.

ALKALOL

Alkalol, manufactured by The Alkalol Co., Taunton, Mass., because it is advertised with "claims of loose nature."

Financial

Earnings & Dividends

BRISTOL MYERS

Bristol-Myers Co. and Subsidiaries reports for nine months ended Sept. 30: Net profit after depreciation, Federal taxes and other charges, $1,574,060, equal to $2.25 a share on 700,280 $5 par capital shares, against $1,895,820, or $2.71 a share, last year. Twelve months ended Sept. 30: Net profit $1,831,973, equal to $2.62 a share, against $2,262,513, or $3.23 a share, in preceding twelve months. Quarter ended Sept. 30: Net profit, $552,012, or 79 cents a share on 700 280 capital shares, compared with $352, 834, or 50 cents a share, in preceding quarter and $667,758, or 95 cents a share, in third quarter of 1933.

COLGATE-PALMOLIVE

The directors of Colgate-Palmolive-Peet Co. have voted to declare the regular quarterly dividend of 12½ cents a share on the company's common stock, and an extra dividend of 25 cents per share, both payable on December 1 to stockholders of record as of November 8.

The directors also declared the regular quarterly dividend of $1.50 a share on the preferred stock. The dividend is payable *January 1 to stock of record December 10.*

EMERSON'S BROMO-SELTZER

The directors of Emerson's Bromo-*Seltzer, Inc., have declared a quarterly* dividend of 40 cents a share on both the *Class A and Class B common stocks, both* payable Nov. 1. This places the issues on *a $1.60 annual basis, compared with $2* paid previously. The regular quarterly dividend of 50 cents on the 8 per cent preferred stock was declared payable on Jan. 2.

LAMBERT CO.

Lambert Co. reports for nine months *ended Sept. 30: consolidated net profit* after depreciation, taxes and other charges, *$1,734,332, equal to $2.32 a share on 746,* 371 no-par capital shares, against $1,830, *087, or $2.43 a share on 748,996 shares,* last year. Quarter ended Sept. 30: Con*solidated net profit. $606,581, or 81 cents a* share on 746,371 shares, compared with *$359,130, or 53 cents a share on 746,371* shares, in preceding quarter and $541,120, *or 72 cents a share on 743,996 shares, in* third quarter of 1933.

LEHN & FINK

Lehn & Fink Products Co. reports for nine months ended Sept. 30: Net profit after depreciation, Federal taxes and other charges, $448,331, equal to $1.12 a share on 400,000 $5 par capital shares, compared with $525,146, or $1.28 a share, on 408,966 shares in same period a year ago. Quarter ended Sept. 30: Net profit $151,447, or 37 cents a share on 400,000 shares, compared with $97,143, or 21 cents a share on 400, 000 shares in previous quarter, and $210, 606, or 51 cents a share on 408,966 shares, in third quarter of 1933.

Some of the players at the closing golf tournament of the Michigan Cosmetic & Extract Association. Upper left, Roy Colter, Ralph Stevenson, Ben Roberts, Wilbur Elliott. Upper right, Roy Colter, E. Van Allsburg. Center right, Roy Clarke, Ben Roberts. Across bottom, Chuck Harvey, Ray Vicary, Herbert Brown, Joseph Wolff, Wilbur Elliott, Andrew Broderson.

Obituaries

R. A. G. Callmeyer

Robert A. G. Callmeyer, for many years *associated with the essential oil business,* died in East Orange, N. J., October 15, aged 66. He was born in Madison, N. J., in 1868 and began his business career with the New York office of Antoine Chiris Co., *progressing steadily until he was manager* of the New York office. On leaving that *company he went into business for himself* for a short time. He later became con*nected with Wangler-Budd Co., and most* recently with Edward T. Beiser Co.

Dr. J. F. McGregory

Dr. Joseph Frank McGregory, for forty-*three years head of the department of* chemistry at Colgate University until he *retired as professor emeritus in 1929, died* at Hamilton, N. Y., October 14.

Charles J. Barker

Charles J. Barker, sales director of Burroughs, Wellcome & Co., New York, died in that city October 9, aged 54. He was born in Boston, and early in his career entered the employ of Hall & Lyon. When the company was taken over by the L. K. Liggett Company, Mr. Barker became store manager and then district manager. In 1918 he entered the employ of Burroughs Wellcome & Co. After a few years as supervising representative Mr. Barker was placed in charge of the sales promotion department.

Franklin B. Yates

Franklin B. Yates, for many years president of the Yates Drug & Chemical Co., New York, died October 20 aged seventy-five. He was born in Bennington, Vt., and was president of the drug company until ill health forced his retirement about a year ago.

E. F. Kemp

Ervin F. Kemp, *general representative* of the Proprietary Association and in *charge of its headquarters in Washington,* died October 23 in his home in Sandy Springs, Md. He was sixty-two years old and has been connected with the association for thirty years, in Chicago and Wash*ington, having charge of its bulletin service* and general publicity and editing the *monthly periodical, Standard Remedies.* He was born in Grand Rapids, Mich., *where he spent his boyhood. Before going* with the Proprietary Association, he was *a newspaper man in several Ohio cities.*

Christian G. Euler

Christian G. Euler, one of the oldest essential oil merchants in this country, died in Passaic, N. J., October 11, aged 75. He was born in Germany, December 10, 1859, came to this country as a youth and entered the employ of Dodge & Olcott Co., where he remained for over 20 years. Early in the 1890's he was engaged by Antoine Chiris Co. to open a New York office and establish an American branch of that company. He continued his association with that company until the period of the World War when he entered business on his own account as president of Shipkoff & Co., Bulgarian rose oil. He was active in this business until his death.

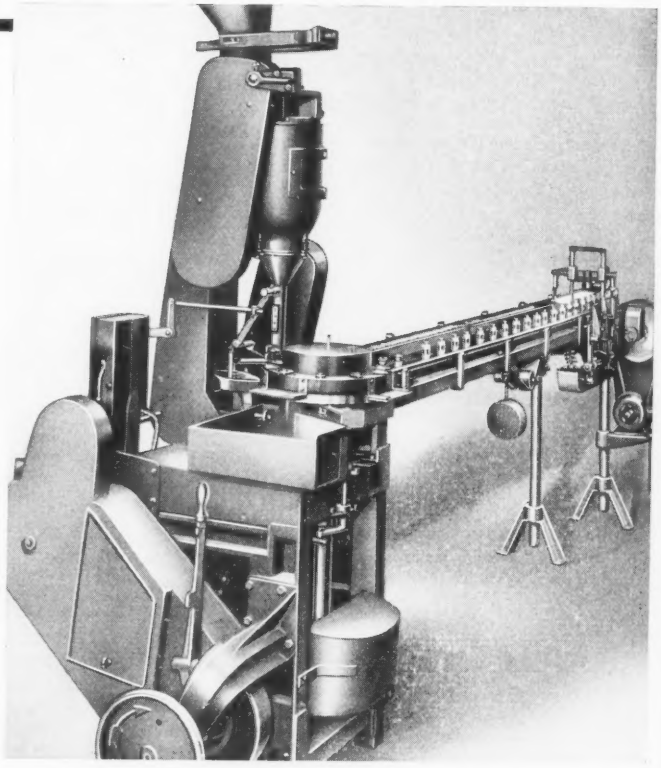
WITHOUT DUST OR WASTE!

Built to meet the requirements of McKesson & Robbins, this new Pneumatic machine is ideal for filling any type of powder product into cans, without dust or waste and at a comparatively high rate of speed.

The machine has performed up to specifications from the start. It is so designed that the flow of powder is positively controlled and shut off when the required amount is filled into the can. This not only improves accuracy but eliminates spillage, overflowing and powder dripping so that the machine is exceptionally clean in operation.

This equipment is adjustable to a variety of sizes. One operator is all that is required to feed the empty cans on the receiving conveyor. The lid-seating device is a reciprocating up-and-down motion press, which seats the lid tightly after an operator has spotted the lid on the filled can.

The many advantages this machine offers should prove interesting to any manufacturer packaging a powder product. Write for more complete information—today.



NEW Compression Powder Machine

Address 70 Newport Avenue, Quincy, Mass.
(Norfolk Downs Station)

Branch Offices in New York, 117 Liberty Street; Chicago, 360 North Michigan Avenue; San Francisco, 320 Market Street; Melbourne, Victoria; Sidney, N. S. W. and Trafalgar House, No. 12 Whitehall, London, England

PNEUMATIC SCALE CORP. LTD.

PRODUCTION FORUM

By Francis Chilson
Production Engineer

This department invites inquiries from manufacturers seeking equipment for producing or packaging drug and cosmetic products. No charge is made for this service.

Homogenized Rouge

We are conducting some experiments on rouge which we hope will result in a finer product. In brief, the method consists in mixing the rouge materials with water. This liquor is run through a homogenizer at a predetermined pressure. The resulting product is centrifuged to remove the water and the rouge mass is then granulated, dried and pressed. We believe that such a process will enable us to produce a very fine rouge—fine in texture and fine in the uniformity of its color distribution. The processes of homogenization and centrifuging can be made continuous and therefore costs should not be high. Our set-up, if all goes, will include a pulverizer, a homogenizer, a centrifugal separator and an oscillating granulator.

Laboratory Emulsifier

A special emulsifier has been developed by Hills-McCanna Company, at the request and with the aid of the Health Products Company, Harrison, New Jersey.

This emulsifier is being offered by Hills-McCanna Company for general laboratory work.

The purpose of the machine developed for the Health Products Company is to make a uniform addition of their Vitamin "D" Concentrate to milk. Designed to quickly and thoroughly blend the fats in the concentrate with the butter fats in the milk.

The machine has a reservoir capacity of one quart, and is intended for continuous operation. All parts in contact with the liquids pumped are made of aluminum. Designed to permit rapid dismantling for cleaning. Only one tool is needed.

The feature of this pump is the vortex, created by the impeller rotor type pump and the reservoir. The vortex brings the lighter substances down to the pump suction, which makes it possible to secure a rapid and complete emulsification.

The high speed impeller rotor type pump has a low discharge pressure and a high film pressure. Two types of rotors are available for various kinds of work.

Ertel's Super Filter

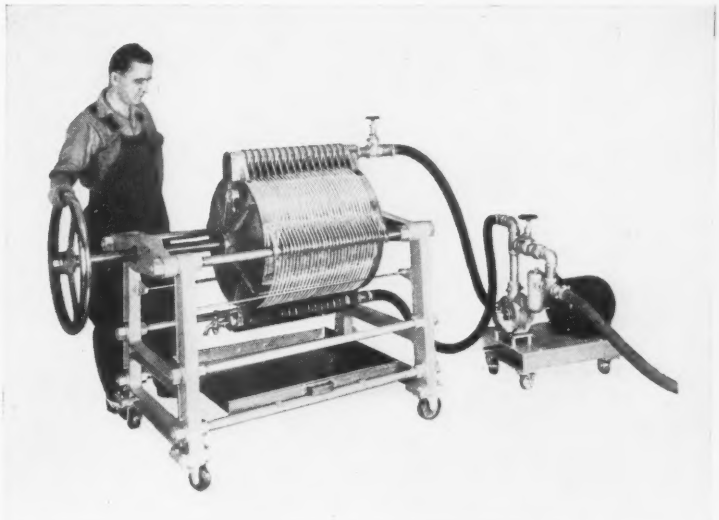
The Ertel Engineering Corp. has introduced a larger type of disk filter which is known as the Super Filter. The disks of this machine are twenty-one inches in diameter and it is designed to hold from ten to a hundred filter sheets. The larger models will deliver from 50 to 75 gallons per minute depending upon the type and viscosity of the material. The machine is sturdily constructed and is easily cleaned.

Centrifugal Clarification

The centrifugal continues to extend its usefulness in the trade. In addition to various filtration and clarification operations it is being used for the purification of raw materials. Recently we received a very white sample of beeswax from Smith & Nichols, Inc. which had been clarified centrifugally. The centrifuge is a very useful machine and we'll have more to say about it later.

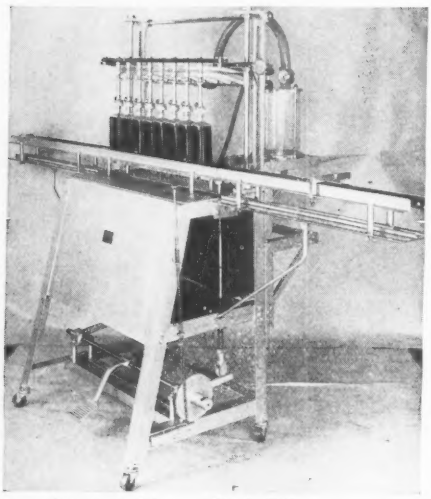
Printed Tablets

We received some intensely interesting samples of tablets and pills from Europe upon which names in contrasting colors were clearly printed. The printing cuts into the coating somewhat making the printing ineradicable. That which interests us most is the fact that some of the pills are only an eighth inch in diameter yet the printing is clear and legible. On one such small pill the word "quinine" can be read distinctly. In case any of you are interested Arner & Co. told us that they



ERTEL'S SUPER FILTER

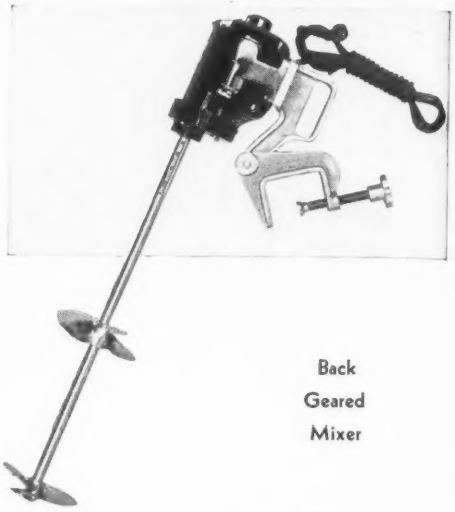
ERTEL LIQUID HANDLING EQUIPMENT



Semi-Automatic Vacuum Bottle Filler

At left is the new Ertel Semi-Automatic Vacuum Bottle Filler which comes with either six or eight filling spouts. It is low in price, economical to operate, is speedy and accurate, and is readily adjustable for different size containers. It will not fill imperfect containers and the overflow automatically returns to the reservoir.

Ertel Portable Mixers, direct driven or back geared, furnished in all sizes and for any purpose. Scientifically designed, accurately balanced, they are light, easy to handle and are always ready for instant service. Note the handy grip on illustration at right, an exclusive feature of the Ertel Mixer, which makes it truly portable.



Back Geared Mixer

MANUFACTURERS OF
Ertel Asbestos Disk Filters, Ertel Asbestos Filter Sheets, Allegheny Stainless Steel Tanks, Portable Bottle Fillers, Glass-Lined Tanks, Portable Mixers, Pumps and Other Liquid Handling Equipment.

ERTEL ENGINEERING CORP.

120 EAST 16TH STREET, NEW YORK, N. Y.

No. 2 Rotary Tablet Machine

New and Improved!

We have no yearly models—but improvements and refinements are being constantly added to Colton machines.

There are over five hundred Colton Rotaries in use.

Superior design, sturdy construction and ease in operation have made this possible.

The No. 2 Rotary Tablet Machine has such desirable features as *positive pressure*, eliminating varying thicknesses of tablets; *hardened steel gear drive*, eliminating frequent replacement of worms used on other makes, and *sliding upper punch holders*, to hold the punches rigidly, enabling the manufacture of special shaped tablets most satisfactorily.

Write for Catalogs.

ARTHUR COLTON COMPANY

2620 East Jefferson Ave.
Detroit, Michigan

made a machine for printing tablets and would like to sell it. The pills to which we refer were not however, printed on the Arner machine. Inasmuch as the registry is so accurate and the pills so small, we think the samples we have could not have been made by hand. So there must be some firm making such equipment.

Vari-Visco Filler

An interesting catalog has just been issued by The Karl Keifer Machine Company, of Cincinnati, Ohio, on their new Vari-Visco Filling Machines—the most recent addition to the well-known Kiefer line of equipment for the bottling and packaging of semi-liquid products.

Kiefer Visco Filling Machines for face creams, thick liquids and emulsions, ointments, etc., and other products of like consistency, have been used for many years and we believe to such an extent that most of the trade is familiar with them. The new machine retains all the features and advantages claimed for the original Visco, such as fine accuracy of fill, clean work, low operating and upkeep costs, and that through the use of newly developed mechanical principles, it has been made even simpler and fills more rapidly. Attention is called to the fact that there are no gears to change, no pistons or valves to set, when changing from one size container to another. The new machine is equipped with a variable speed drive for operating the measuring pump, and it is claimed that adjustments can be made for filling different quantities in a few moments by simply turning a hand-wheel.

The motor drive is also equipped with a variable speed drive, so that the speed of the machine (or number of containers per minute) can be regulated instantaneously.

The Vari-Visco Filling Machine is made in two types: One with conveyors for automatic feed and discharge of the containers. This is shown in the illustration herewith, and is recommended for handling straight side containers, of those bottles or jars which will permit of automatic handling. With this machine, the containers are simply placed on the feed conveyor, from which they are fed automatically into the machine proper, filled and automatically discharged upon the conveyor to be taken to the closing operation. The other type machine is of such design that the containers are carried on trays. This machine is particularly recommended for odd shape containers, or where this style of equipment best suits plant conditions.

The machine may be had in stainless steel, nickel, monel, bronze, or iron construction, as desired. Be sure to send for a copy of this catalog.

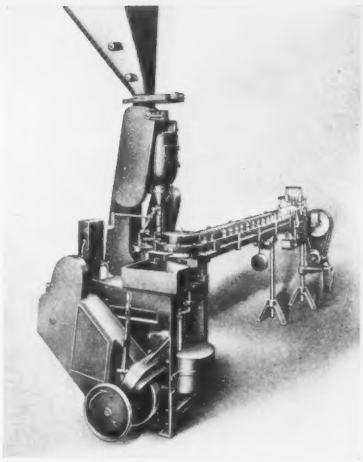
Tooth Powder Can Filler and Capper

The Pneumatic Scale Corp. announces that they have perfected a tooth powder filler and capper. This machine was built to meet specifications furnished by McKesson & Robbins, Incorporated with the idea that there would be a field for this type of equipment.

They requested that 60 cans a minute be filled to accurate weight and then capped—the caps to be spotted before going under the seating device—the entire operation to be practically dustless.

The machine has performed up to specifications from the go-off, and Pneumatic feels they now have equipment to offer that not only will accurately fill tooth powder or a like product into cans at a comparatively high rate of speed, but will fill without dust and be adjustable to a variety of sizes.

While this machine is for a new purpose, it is not altogether a new machine; it is an adaptation of the auger filling method developed by Pneumatic Scale Corporation, Limited several years ago for packaging products that had to be accurately measured and filled without the usual dust that goes with auger filling. This same filling mechanism has been successfully used for a number of years on machines in other industries throughout the United States, and in building a machine for tooth powder packaging all they had to do was



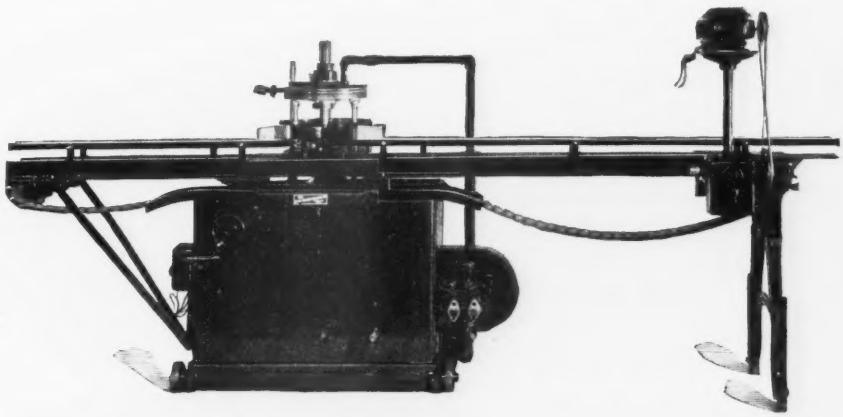
make up new feeding and carrying devices and attach a capping machanism.

By means of a screw adjustment, the amount of powder fed into the cans may be increased or decreased while the machine is running.

There are no clutches to slip or give trouble in variation of the speed of the motor, and slippage of any kind will not affect the quantity of powder filled. In other words, the worm always revolves the same number of times independent of the speed of the motor, whereas, if a clutch were used, and there was any slippage in it, there would be bound to be a decrease in the amount of powder in the package.

Accuracy of the filler depends somewhat on the size of the package. On 2 oz. or 4 oz. packages it is possible to keep very close to the predetermined amount; 1/16 oz. plus or minus on the 4 oz. package and still closer accuracy on the 2 oz.

The machine is so designed that the flow of powder is positively controlled and shut off when the required amount has been filled into the can. This not only improves accuracy, but eliminates spillage, overflowing, and powder dripping so that the machine is exceptionally clean in operation.



KIEFER'S VARI-VISCO FILLER

USE ABBÉ EQUIPMENT!

For grinding and milling Drugs, Cosmetics and Chemicals

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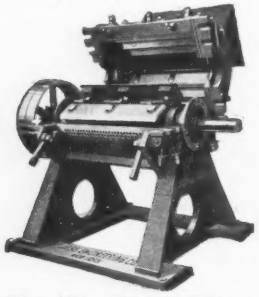
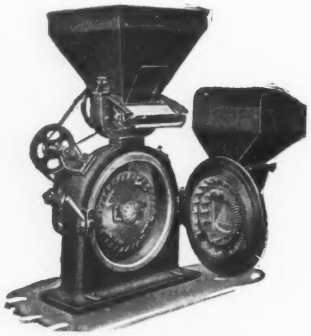
For shredding and coarse grinding roots, bark, woods, leaves, twigs, etc.



The Abbe Rotary Cutter and Shredder

For rapid grinding of all types of crude drugs, crystals and chemicals.



The Abbe Rapid Grinder

For fine milling and mixing of powdered drug extracts and face powder, color bases.

The Abbe Pebble Mill

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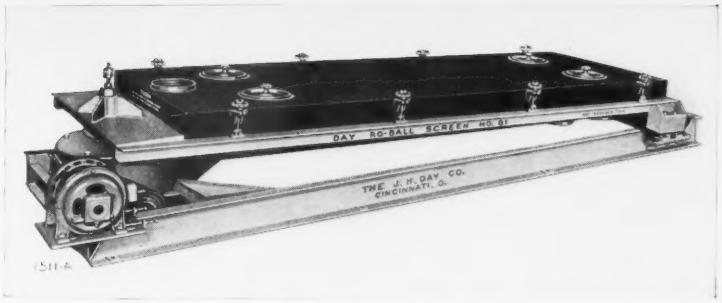
The machine is arranged with an intake and a delivery conveyor which are side of each other.

One operator is all that is required to feed the empty cans onto the receiving conveyor, but if the lid seating device is used on the delivery conveyor, and the machine is operated at 60-per-minute, two operators will be required to spot the lids on the filled cans before the lid seating device presses them down onto the cans. The lid seating device is a reciprocating, up and down motion press, which seats the lid tightly after an operator has spotted the lid on the filled can.



J. H. Day has just perfected a horizontal type of vibrating sifter. This machine embodies many new features and is said to be comparatively dustless.

Theory of Homogenization

Some of the boys have written in to ask how in halifax a cream containing cod liver oil could be perfumed. Their interest was aroused by an article on tissue cream suggesting the use of cod liver oil which appeared in the last issue of this paper. If the emulsion is an oil in water type it will not smell too potent, because water, being the continuous phase, will surround the droplets of oil. Another obvious thought suggests itself namely to homogenize the product. Recently at the plant of the Manton-Gaulin Company we smelled a sample of an emulsion containing phenol and other rank smelling medicaments. When the sample had been homogenized the difference in intensity of the door was perfectly amazing. Evidently the odor producing bodies were so finely dispersed through the product that the continuous phase all but masked their odor completely. At the same time M-G informed us that they will soon have a laboratory size homogenizer of 12 gallons per hour capacity ready for the trade. In order to stress the importance of homogenization we asked Mr. John M. Colony, president of the company, to discuss the theory of homogenization. These are his words:—

"An homogenizer may be defined as a machine for improving emulsions, for making them more stable, and giving them other desirable properties. An emulsion may be described as an intimate mixture of two liquids which do not ordinarily mix. Oil and water do not ordinarily mix, but when, by subjecting them to special treatment and conditions, we do succeed in mixing them to a condition which is more or less permanent, we have an emulsion.

In order to obtain some sort of mental picture of the size of the dispersed particles in an emulsion it is desirable to introduce a unit of length which will probably be new to most readers. It is the micron, usually represented by the Greek letter "μ". One micron is 0.001 mm. Particles having a diameter of 1 μ cannot be distinguished by the naked eye but are visible in the microscope. The lower limit of microscopic visibility is 0.1-0.2 μ.

The size of particles in an ordinary emulsion will vary from a diameter of 50 μ down to 0.1 μ, depending on the nature of the emulsifying agent and on whether or not the material has been put through a homogenizer. For example, in ordinary cows' milk the average diameter of the fat globules is 3–5 μ, although a few are as small as 0.1 μ and a few as large as 22 μ. After the milk has been through an efficient homogenizer this particle diameter is reduced to about 0.3 μ and all of the particles are of about the same size. At the same time the number of fat particles is increased about 1200 times in a given volume.

When we are dealing with mixtures of two liquids like alcohol and water, which are readily miscible, there is no noticeable change in the viscosity of the mixture whether there is a large percentage or a small percentage of water. In an emulsion, however, it is possible to vary the viscosity of mixtures of the same two liquids by changing the relative proportions of each. The higher the percentage of the dispersed phase, the higher the viscosity. In fact, in extreme cases, when the proportion of one liquid is very small relative to that of another liquid dispersed in it, the resulting mixture may become almost solid.

Another way of increasing the viscosity of emulsions of two liquids is by increasing the degree of dispersion, or in simpler language by decreasing the size of the particles of the dispersed phase. In the homogenizer there is opportunity to vary the size of the particles by varying the pressures at which the homogenization is carried out, and in this way controlling the viscosity of the resulting emulsion. The underlying reason why decreasing the size of the particles of the dispersed phase should increase the viscosity of the emulsion is not entirely understood, but it is known to be associated with the great increase in the surface area of these particles and the effect of this surface on the emulsifying agent.

So much depends upon the conditions under which an emulsion has been prepared and under which it is kept, not to mention the character of the ingredients of which it is composed, that it is difficult to make many generalizations as to the stability of emulsions. In general, it may be said that, other things being equal, the more viscous an emulsion is, the more stable it will be. This means that the conditions which increase the viscosity of an emulsion, and which have been outlined in the preceding paragraphs, also affect the stability. It should be recognized, however, that there are a number of other factors which enter into the situation, too numerous and too involved to permit of adequate treatment in this brief discussion."

Revolving Table

Recently we had to cook up a way of feeding an automatic labeling machine which was running just a shade too fast for one girl to feed it handily. So in collaboration with our good friend M. Knab we devised a motor driven revolving table with a set of adjusting guides. This enables the operator to grab half a dozen bottles and place them on the table without taking time to place them. The table does that automatically. Even when the bottles travel toward the guides in pairs they do not jam up. The guides straighten them up neatly and they travel into the labeling machine as smoothly as one could wish for. Formerly the operator had to put two bottles into the labeling machine runway at a time. Now she can handle twice as many. With this machine we believe that one operator could easily feed any machine running up to 120 bottles per minute. Knab is planning to build these motor driven feed or transfer tables on a standard basis.

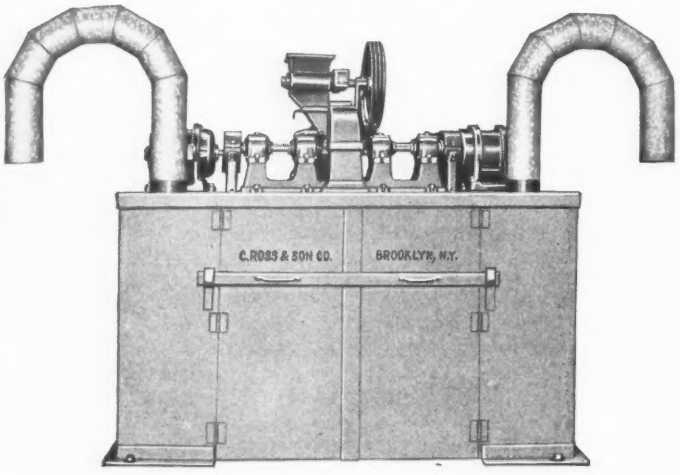
Equipment Announcements

Robinson Mfg. Co. Muncy, Pa. introduces a screen type pulverizer which is said to be absolutely dust tight. It is said that the machine reduces the material being ground to such a uniformly fine state that it requires no sifting.

First Machinery Co., New York City has issued an interesting circular describing a wide variety of reconditioned equipment which they have available.

ROSS NEW MODEL HIGH SPEED PULVERIZERS

No. 66 Size 12"



1148

These Pulverizers we recommend for high speed milling of dry materials such as Chemicals, Waxes, Crude Drugs, including Roots, Seeds, Bark, Leaves, Wood, etc.

They are also used for the milling of Face Powder.

The use of this machine on Face Powder insures a perfect distribution and blending of color and essential oils throughout the material. Machines are built in a range of sizes having a capacity of from 500 pounds to 1 ton of powder per hour.

They are intended for large batch work where saving in milling time is important.

The machine is constructed so that there is a constant air current flowing through it which prevents the material from heating while it is being subjected to the violent attrition action within the machine.

CHARLES ROSS & SON COMPANY

83 EMERSON PLACE — *Write for new Catalog* — BROOKLYN, N. Y

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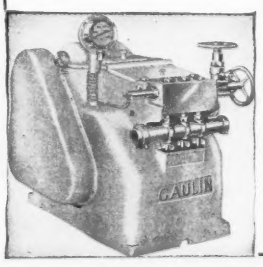
SOLUTIONS: Cough medicines, proprietaries, mouth washes, lotions. Homogenizing secures better distribution and solution of medicaments and perfumes.



The Manton-Gaulin Homogenizer is more effective and less expensive than a colloid mill. Sizes are available from twelve to several hundred gallons per hour. SEND FOR CATALOG.

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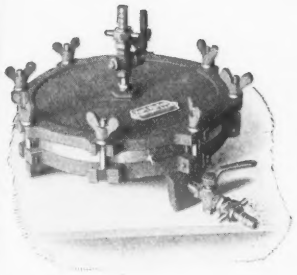

KIEFER Filters are made in filtermasse types—paper sheet—cloth pad—and in all sizes. You can easily obtain just the filter to suit your plant conditions and turn out the most thorough job of filtration for the needed daily quantity.

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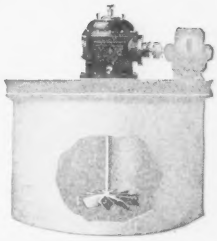

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Send sample container and tablets for quotation

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Special laboratory division devoted to tablet compressing and coating problems

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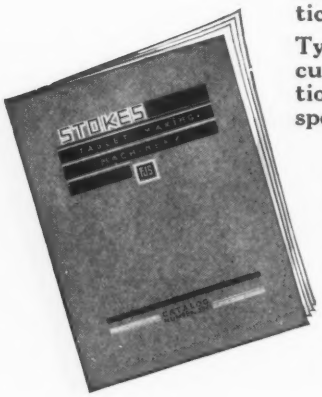
During the past three years we have not only modernized our complete line of Tablet Machines and auxiliary equipment, but we have expanded our laboratory advisory service on the preparation of materials and formulas, selection of equipment, plant layout, and the proper manufacturing technique to use to get the desired results.

A laboratory staff which includes an expert tablet maker and coater, as well as chemical and mechanical engineers, is available to advise you on your tablet making and other pharmaceutical equipment problems.



Typical problems solved for our customers include the preparation of effervescing tablets, special coating problems including enteric coating, combining operations to simplify granulating procedure, developing formulas for compressing without the use of binding solutions, granulation of incompatible ingredients, etc.

Our new catalog 33-T describes this expanded laboratory service fully, as well as our new and improved machines.

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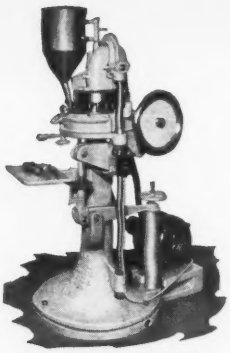
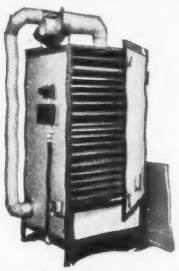
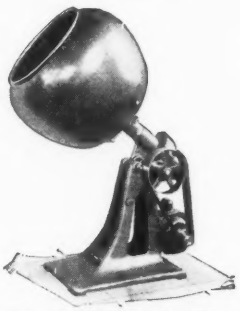


New STOKES "RB-2" Rotary Tablet Machine



New STOKES Hot Air Drying Closet—No. 38. (Electrically heated with automatic temperature Control)



New STOKES Coating Pan, with 1-A Stand

New STOKES Capsule Filler 46-D

New STOKES One Gallon Laboratory Water Still, No. 171

PERFUMERS' SHELF

Phenylethyl Alcohol

One of the most useful and common ingredients is phenylethyl alcohol, and it is one of the most valuable aromatic chemicals available to the perfumer today. Without this product the fabrication of artificial rose odors would be made extremely difficult. But it not only finds a use in rose but also in the popular lilac odors, which have held a prominent place in the public mind for the last two years. Phenylethyl alcohol when smelled alone resembles the odor of dried roses which occurs in the pure product. It is made by the aromatic chemical manufacturer in several different ways. One of the chief objections to the inferior products is that it has a radish-like odor caused by an impurity which has not been removed in manufacture. This radish-like odor is not so objectionable in the finished product but when combined with other odors such as rose or orange blossom this odor is accentuated and tends to give the finished product a crude and chemical characteristic, which is very difficult to overcome.

Phenylethyl alcohol does not discolor creams, powders or perfumes and does not irritate the skin. It not only finds a place in the above mentioned cosmetics but is also a valuable ingredient in soaps. It cannot be used satisfactorily in pure white soaps without danger of discoloration, except in the cases where traces of phenylacetic acid remain in the product, in which case the soap will show brown spots on standing.

It is believed that the consumption of this product has greatly increased during the last few years, since new and unusual uses have been found by the perfumer. For example the popular gardenia odors which are accepted with great favor today contain large quantities of this product, together with some of its esters. It has no great fixative value in itself and when used in any product for perfuming, should contain other ingredients which will help to make its odor tenacious and lasting.

Not only is the above mentioned product a valuable one but its esters are also of considerable importance, although not used to as great an extent as the alcohol. For example phenylethyl acetate, with its leafy character, finds an important place in many of the flavor odors and also in artificial peach flavors. It is not as staple as the alcohol but when used in small quantities is not affected by small amounts of alkali. Phenylethyl butyrate, another ester of this alcohol, is an excellent adjunct in the fabrication of a true red rose odor. It is a little too heavy and buttery to be used in large quantities but finds its value in the fact that it produces warmth to the most delicate of rose odors. Phenylethyl sinnimate is used mostly in powders and is the best fixative of the entire group. It has very little odor value but is extremely lasting. Phenylethyl propionate also greatly resembles rose and is an excellent sweetener for perfumes and powders. It resembles the odor of the true rose petal but should be used sparingly and blended carefully to produce its best result. In flavors it finds a place in the manufacture of artificial grape, and is often used as an ingredient in lipstick perfumes, because its taste is agreeable. Phenylethyl salicylate is very little used at present and finds its greatest value as a base for fancy bouquets. It tends to resemble the hyacinth more than the rose type of odor and is, therefore, used most in artificial hyacinth types than in the rose type itself. Phenylethyl valerianate is the least useful of all the esters insofar as perfuming is concerned but finds its place as do some of the other esters in the flavor field. It has been recommended extensively for use in artificial pineapple flavors and is also used in small quantities in artificial walnut.

Phenylethyl alcohol and its esters are of vital interest to anyone making perfume compositions. Their use in rose, lilac, orange blossom, jasmine and gardenia are only a few of the applications to which these items are applied. Nearly all of the popular perfumes of today contain either phenylethyl alcohol, one or two of its esters or both. If not familiar with these products, the perfumer should at once acquaint himself with every one before attempting to put out a new perfume or cosmetic odor, which he desires to be popular.

Terpineols

Alpha-terpineol is widely distributed in nature, it is found either in the free condition or in the form of its esters, such as the acetate and valerianate. Beta-terpineol and terpinen-l-ol do not exist in nature but gamma-terpineol has been isolated from certain turpentine oils. It is claimed for gamma-terpineol that it possesses a milder odor than either of the other terpineols, while the odor of terpinen-l-ol is described as being somewhat less pleasant. The commercial products found on the market have a fairly wide range of price, which is chiefly determined on the basis of their odor quality. In the making of fine lilac and fancy perfumes considerable care and judicious use of terpineol is necessary in the compounding of formulas.

In spite of its high boiling-point the odor of terpineol lacks durability. Suitable fixatives for use with it are the Musks, synthetic as well as natural, synthetic ambers, vanallin, heliotropine, resinoids of benzoin, styrax and peru balsam. Terpineol does not possess a strong odor in itself, but it may be fortified by blending with benzyl acetate, while a flowery effect can be produced by additions of small amounts of natural rose, jasmin or tuberose, of which the latter is the best. In cheap compositions substitutes for the natural floral oils are of course used. Ylang-ylang also is a suitable addition and phenylethyl alcohol lends a note of honey-like sweetness.

In all lilac compositions hydroxycitronellal plays a most important part and large quantities are consequently used. Hydratropic aldehyde, used in very small proportion gives a rich, natural note, while a green, leafy note can be obtained by means of phenylacetaldehydedimethylacetal. Certain hydrogenated quinolines, which resemble the odor of civet may be used in terpineol, compositions, but their use requires a most careful treatment.

The esters of terpineol are with possibly one or two exceptions not known so well as the basic material. However, the esterification of terpineol presents certain difficulties, which increases the cost of production of such esters as the propionate, isobutyrate, etc., to such an extent that their value is not commensurate with their usefulness. The best known and cheapest of the esters of terpineol is terpinyl acetate. It has a somewhat harsher odor than bergamot, which it resembles, but with a slight lavender note. It finds its greatest application in the production of cheap eau de colognes, lavender waters and in the compounding of cheap soap perfumes.

The propionate perhaps comes next in importance. It is substantially more costly than the acetate, however it possesses an odor which more closely resembles the French lavender oil. Used with an equal amount of bergamot it is especially good for the perfuming of bath salts

Peony Parento

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Persistent

A most refreshing odor for creams and lotions. Extremely effective in face powder and dusting powders as well. For this purpose we recommend the addition of a small amount of Fixative Otto C. P. which will serve as a binder and sweetener.

Samples on request

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THE COMPOUNDERS' CORNER

Making Depilatories

The active ingredient for removing hair in depilatory preparations has usually been a sulfide of calcium, barium or strontium, and it was thought that these were more efficient than either sodium or potassium sulfide. Research has proved however, that this advantage was simply due to the freshness of the preparation, and when after a short time has elapsed the depilatory power had noticeably diminished. Sodium sulfide is much more stable than the foregoing, and does not require so much care to be exercised. In order to prepare a depilatory paste freshly prepared sodium sulfide should be procured and its sulfide content accurately determined. A definite amount of the sodium sulfide is then taken by simply measuring off some of the standard solution and adding to rose water. A good grade of slaked lime is then added in sufficient proportion to cause the mass to form into a paste. The mixture is put through a special mixing machine and other products may be added at this time, such as osmo-kaolin, soft soap and glycerine. The glycerine assists in binding together, as also does the soft soap. These ingredients are weighed out in their respective proportions, and to one of them is added the perfume oil to give the product a distinctive odor.

To control the mixing operation and to determine when a homogeneous mix is obtained, a sample may be observed under the ultra-violet lamp. Under this medium the slaked lime appears as a bright red compound, while the other components display different colors. Eventually the appearance of the mass under this light shows that it is homogeneous.

Glass enameled containers should only be used for the preparation of depilatories. The ordinary make of copper vessel is of no practical value, as the sodium sulfide would form black copper sulfide, would spoil the appearance of the product. All metal surfaces are more or less affected by the sulfide of the depilatory; aluminum and zinc although not coloring the product are severely corroded by the sulfide and hence cannot be considered for this work.

Light and Heavy Magnesia

The proposed U. S. Pharmacopoeia XI Sedimentation test cannot be depended upon to distinguish between light and heavy magnesium, according to Wales and Keenan in the Jour. Assoc. Official Agricultural Chemists. A weight-bulk relationship will distinguish between the two types, but it must be accurately standardized to give consistent results. Microscopic examination may prove to be the most promising means of differentiating between the two types.

Dental Tablets or Wafers

A suggestion for a radical change in the type of form for a dentifrice, which offers many advantages has been proposed. The form suggested is in the shape of a compressed, corrugated, oblong dental wafer, the size of the set of bristles in an ordinary tooth brush, about one-twelfth of an inch thick, and weighing approximately one gram. The dental wafer may be made so that by placing it on a wetted tooth brush and letting a few drops of water fall on it, it will disintegrate and form a paste, in which state it may be applied to the teeth. The proper way to use it, however, is to first chew it up well like chewing gum and work it around the teeth with the tongue; then a clean wetted tooth brush may be used over it in the ordinary way. This simple process tends to make the act of cleansing the teeth much more easy and less tedious than by placing the dentifrice on the tooth brush, with which many children experience some difficulty. The dental wafer may be made according to the following formula: Magnesium sulfate, c. p. 1.0, Dicalcium phosphate 40.0, Sodium sulfate, neutral, dry 8.0, powdered sugar 5.0, Tartaric acid 20.0, Sodium bicarbonate 24.0, Gelatine powder 1.0, Oil of peppermint 1.0.

Sulfonated Lauryl Alcohol

Sulfonated lauryl alcohol in aqueous solutions possesses many valuable properties particularly where used to replace soap. It is exceedingly active as an emulsifying and cleansing agent. The surface tension against most dispersed phases, and particularly against olein and neutral fats, is considerably reduced, so that these fats are very easily converted into emulsions. Its high wetting-out power, makes it far superior to soap. Agitation in aqueous solutions gives lathers which are more permanent than those given by soap solutions. It is neutral, *i.e.* it exhibits a pH of about 7; thus it can be used with either mineral or organic acids, or it can be used with ordinary soap, sodium carbonate or other alkaline solutions while still retaining its excellent properties of cleansing, penetrating, etc. . . . It is stable under ordinary atmospheric conditions and does not exidize and turn rancid with the development of objectionable color and odor, as is often true of soaps in certain combinations. Solutions of salts of calcium, magnesium and many of the heavy metals are not affected by it.

Nascent Soap

Nascent soap, or soap formed *in situ* by combination of fatty acids and alkali in articles which are being cleansed, has a vastly greater cleansing action compared with that which it possesses when already formed in ordinary aqueous soap solution. The amounts of fatty acid to give the same cleansing effect were found to be as follows:

As free oleic acid.....	0.25 gm.
As soap in fabric.....	1.76 "
As soap in aqueous solution...	5.9 "

The practical application of "nascent soap" has been accomplished by the marketing of an emulsion of oleic acid. A patented formula comprises oleic acid 45, sulfonated castor oil 5, glue 1.5, water 48.5. The method of using consists of diluting the emulsion to about 0.2% of fatty acids. The articles to be washed are dipped in this emulsion and the surplus liquor squeezed out before putting them in a dilute solution of sodium carbonate or of sodium bicarbonate and stirring gently. The formation of soap, with the liberation of dirt, is immediately apparent.

Six times the amount of fatty acids applied in the form of soap flakes is needed to obtain equivalent results, but oleic acid in benzine solution is four times as active as in the form of an emulsion. It is suggested that lowering of the interfacial tension is the reason for the increased detergent activity of nascent soap.

Mucilaginous Creams

Creams made from mucilages or jellies, such as quince seed, agar or tragacanth are easy to handle, concentrated materials containing as little water as possible being used. The dry product should not be used, since it will extract water from the soap in an attempt to swell.

Starch and glycerine creams are easily worked in, particularly since they contain little water; gelatine creams are used in the same way when they contain less than 30 to 50% water. Some water must be present to permit swelling.

Even small quantities of slime-forming products are useful in soap; as little as

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Antirancidol, ¼lb. for $1.00
Barium Sulphide, 1 lb. 80c.
Beeswax U. S. P. discs, 5 lbs. @ 45c.
Borax U. S. P. powder, 5 lbs. @ 12c.
Bentonite, 5 lbs. @ 10c.
Benzoic Acid U. S. P. 1 lb. 80c.
Boric Acid U. S. P. powder, 5 lbs. @ 15c.
Bromo Acid, 1 oz. 50c., 4 oz. for $1.50
Carmine No. 40, 4 oz. for $1.50
Castor Oil (Tasteless & Odorless), 1 qt. 60c.
Caustic Potash U. S. P. gran., 1 lb. 50c.
Ceresine, 1 lb. 40c.
Cetyl Alcohol (Tech. 92%), 1 lb. $1.25
Cholesterine C. P., 1 oz. $1.25
Chlorophyll, (oil soluble), 1 oz. 40c, 4 oz. $1.30
Citric Acid U. S. P., 1 lb. 65c., 5 lb. @ 60c.
Cocoa Butter (odorless), 1 lb. 50c., 5 lbs. @ 50c.
Colloidal Clay, 5 lbs. @ 15c.
Cosmetic Colors:
  For face powders:
    Cosmetic Ochre R (for Rachelle), 4 ounces 30c.
    Cosmetic Sun Tan " " 30c.
    Cosmetic Pink B (for Nat. & Peach) 1 oz. 30c.
  For Lip-stick and rouges:
    Light, Medium, Dark, Vivid, Raspberry, Poppy, per oz. 30c.
  For Hair Preparations:
    Hair Rinse Colors (12 shades available), per ¼ lb. $1.50
    Wave-set Colors, 1 oz. 50c., ¼ lb. for $1.25, 1 lb. $3.50.
    Brilliantine Green, 1 oz. 40c., ¼ lb. $1.50
  For Eyeshadows and Mascaras:
    Blue, Medium Brown, Dark Brown, Green, Violet, per oz. 30c, Black ¼ lb. for 50c.
Cremogene (absorption base), 1 lb. $1.00, 5 lbs. @ 80c.
Ethyl Ether of Diethyleneglycol, per lb. $1.00
Fullers Earth, 5 lbs. @ 12c.
Glyceryl-Monostearate, per lb. $1.00
Glyceryl Mono-oleate, per lb. $1.00
Gum Arabic (Acacia) U. S. P., 5 lb. @ 30c.
Gum Karaya, 1 lb. 35c., 5 lbs. @ 30c.
Gum Paragon (best for wave-sets), 1 lb. 50c., 10 lbs. @ 45c.
Gum Tragacanth Ribbon U. S. P., 1 lb. $1.50
Gum No. 17 (produces stringy wave-set) lb. $1.00
Infusorial Earth, white, 5 lbs. @ 15c.
Isopropyl Alcohol, ½ gal. for 75c., 1 gal. $1.30
Kaolin (white for face powder or beauty packs), 5 lbs. @ 10c.
Lacquers for Nail polish, clear 1 gal. $4.00, 5 gallon @ $3.50
Lanolin U. S. P. Anhy. nearly odorless, 5 lbs. @ 35c.
Lecithin, pure ¼ lb. for $1.00
Lecithin (80% in mineral oil), 2 oz. for 50c.
Magnesium Carbonate U. S. P. (white Henna), 5 lbs. @ 20c.
Magnesium Stearate, 1 lb. 40c.
Menthol U. S. P., 1 oz. 35c.
Methyl para-hydroxybenzoate, ¼ lb. $1.00, 1 lb. $3.50 (Ethyl, Propyl and Benzyl esters also available, request quotations).
Mineral Oil (light for creams, etc.), 1 gallon $1.00
Oxy-Quinoline Sulphate, ¼ lb. $1.75, ½ lb. $3.25, 1 lb. $6.00
Ozokerite, genuine, 154 m. p., 1 lb. 85c.
Peanut Oil Refined, 1 qt. 60c.
Paraffin, 128-130 m. p., 5 lbs. @ 12c.
Paraformaldehyde, 1 lb. $1.00, 5 lbs. @ 80c.
Petrolatum, best white U. S. P., 5 lbs. @ 25c.
Precipitated Chalk U. S. P., 5 lb. @ 15c.
Quince seed Persian, 1 lb. $1.50, 5 lbs. @ $1.40
Rice Starch pure, 1 lb. 35c, 5 lbs. @ 30c
Saponine, ¼ lb. 60c.
Sesame Oil Refined, qt. 60c., gallon $2.00
Shampoo Base, (natural, opal, tar, mint, lemon) or 5 lbs. @ 20c.
Sodium Benzoate U. S. P., 1 lb. 75c, ¼ lb. for 30c.
Spermaceti U. S. P., 1 lb. 35c., 5 lbs. @ 32c.
Stearic Acid, T. P. (Saponified), 5 lbs. @ 25c.
Strontium Sulphide (nearly white), per lb. $1.00
Sulphonated Castor Oil, 1 qt. 55c., 1 gal. $1.75
Sulphonated Olive Oil (clear), 1 qt. 60c., 1 gal. $1.95
Sulphur for hair restorers (wets promptly with water), 1 lb. $1.00
Sulphur Colloidal, ¼ lb., 60c., 1 lb. $2.00, 5 lbs. @ $1.50
Talc, Italian Extra, 5 lbs. @ 15c.
Talc, Super R. F. R. (best obtainable), 5 lbs. @ 20c.
Tartaric Acid U. S. P., 1 lb. 60c.
Titanium Dioxide Pure, 1 lb. 50c., 5 lbs. @ 45c.
Triethanolamine, per lb. $1.00
Triethanolamine Stearate (Anhydrous), lb. $1.00
Zinc Stearate U. S. P., 1 lb. 35c.
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ALL CHEMICALS FOR THE COSMETIC INDUSTRY

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0.1% tragacanth definitely makes soap milder and more agreeable.

Creams containing large proportions of glycerine must be used sparingly, since more than 5% glycerine make it very difficult to mold the soap. On the other hand starch also present in the cream will be present in the soap only to the extent of about 0.25%.

Skin creams containing mucilages should also contain preservatives of some kind to prevent decomposition; if alcohol or glycerine are present, benzoic or boric acids will serve the purpose, but are not entirely reliable. But when the cream has been made with polysaccharides or albuminous substances, a sure preservative, such as a p-hydroxybenzoic ester must be used.

Mixed creams, composed of mixtures of stearate and jelly creams (and powder components, if desired) are very popular, and may be added to soaps. If water content must be watched, single ingredients may be mixed with soap.

Some creams in use at present contain neither stearates nor starchy swelling agents; these are the ones made from the monostearin glycerin ester with the addition of a little lanolin, beeswax, spermaceti, paraffin oil, etc. Such creams may be added in large proportion to soaps and the product is quite creamy. These creams are often combined with stearate creams, jelly creams and powders; preservatives are necessary.

Cream perfume may be added, but is virtually useless, since it is present in such small quantity that it is completely masked by the soap perfume.

In conclusion, all these cream additions have a certain limiting effect upon the lathering power of the soap.

Concentrated Pepsin Solution

To prepare a stable concentrated pepsin solution (1:1), following precautions must be taken. Thus, 200 grams of powdered pepsin (1:5000) are dissolved in 1.920 kilograms of water at 45° C. Then 2.88 kilograms glycerin are added. Mixture is allowed to stand over night and filtered next day. A solution made from the same pepsin (1:5000) by mixing 250 grams pepsin with 6 kilograms lactose and then dissolved in water was also stable. If strong pepsin (1:5000) is not available, stable glycerin-pepsin mixtures are obtained (1:1) by triturating 80 grams of pepsin (1:2500) with mixture of 525 ccm. (equal to 650 grams) of glycerin and 15 grams hydrochloric acid (25% concentration), and then enough water is added (about 300 ccm.) to make total volume of 875 ccm. (about one kilogram in weight). Solution is filtered after one week. Liquid pepsin (1:1) is made from 100 parts pepsin (1:2500), 50 parts dilute hydrochloric acid, 250 parts water and 900 parts glycerin, or from 50 parts pepsin (1:5000), 50 parts dilute hydrochloric acid, 300 parts water and 900 parts glycerin. Solution is filtered after 8 days. In all cases contact with metals should be avoided.

Sturgeon Oil and Vitamin A

Attention has been called to sturgeon liver oil as comparable with halibut liver oil in vitamin A potency. Samples of sturgeon liver oil vary widely, the best sample showing 4000 blue units in the antimony trichloride test for 0.2 c.c. of a 20% solution. The liver of the tuna fish has been recently examined and found to contain vitamin A. Samples tested gave blue values of 1900-2700 units.

Peroxide in Cosmetics

Hydrogen peroxide is generally employed in cosmetics for the care of the skin, as a disinfectant and in bleaching the hair (disinfectant, deodorant, and bleach).

For the care of the skin, hydrogen peroxide and especially its derivatives are useful in all types of baths, but particularly in foot baths. Sodium perborate is used in the latter case, but it is less effective than other substances in bleaching creams. Bleaching action of active oxygen is of great value in removing various skin blemishes. In this connection, the use of hydrogen peroxide mixed with salve bases has aroused distrust, for such mixtures were supposed to lack stability. Oils and fats were supposed to become rancid very rapidly; even the purest petrolatum was not supposed to be able to resist this oxidation. These suppositions have been disproven by the most recent investigations. At the end of two months, a mixture of an ordinary salve base with 1% of hydrogen peroxide still showed bactericidal power and aqueous emulsions of this paste killed various types of bacteria at the end of one hour. Even lard did not noticeably change the activity of hydrogen peroxide. Stable creams containing hydrogen peroxide are now manufactured industrially.

While dilute hydrogen peroxide acts harmfully on hair only when the action is carelessly prolonged, concentrated hydrogen peroxide may be used as a depilatory. If hair to be removed is left in contact with a solution or salve containing concentrated hydrogen peroxide or is rubbed with a mineral excipient, the hair root is attacked and may soon be painlessly removed. The removal of the hair is permanent. On the other hand there is the great disadvantage that concentrated hydrogen peroxide is extremely irritating.

In the cosmetic treatment of excess perspiration, the use of hydrogen peroxide is very important. The mixture generally recommended consists of formaldehyde and hydrogen peroxide, but is too unstable to be really suitable.

Nails may be bleached with the compound; in this case, just before using, add a little of 10% ammonia to cause more rapid decomposition, as well as to remove grease and dirt from the surface of the nails. The bleaching should not be too prolonged, for the nails may lose their transparency and become brittle.

In beauty care, the disinfecting action of hydrogen peroxide is used very frequently. This is particularly true in products for oral hygiene. The bleaching action of hydrogen peroxide is certainly desirable but hardly great enough to be worthy of consideration. Indeed, the color of the teeth is primarily conditioned by nature and may not easily be affected by artificial means. For dentifrices, 3% hydrogen peroxide is generally used along with stabilizing substances. Essential oils and synthetic perfumes are generally modified by oxidation, but certain phenolic derivatives are very stable. These are anethol, anise oil, eucalyptol, oil of eucalyptus, and thymol. It is not the oxygen disengaged that exercises the disinfecting action, but it is the hydrogen peroxide molecule itself which is the bactericide. The hydrogen ion concentration of the medium in which the reaction takes place plays a certain part, since an acid reaction favors the germ-killing effect. The acid reaction must not be due to a strong mineral acid, but phosphoric and benzoic acids are activating substances. The former acid even increases the stability of hydrogen peroxide in the presence of lard, so that decomposition is greatly retarded. The use of hydrogen peroxide for oral hygiene is open to the same objections as in the use of other disinfectants; their use may be somewhat harmful to the digestive enzymes contained in the saliva. Nevertheless, the advantages of proper disinfection far outweigh the disadvantages.

Bleaching of hair with hydrogen peroxide is undoubtedly the one method which will always lead to the desired result, as contrasted with the treatment with camomiles. Hydrogen peroxide, because of its antiseptic properties, cleans the scalp while it bleaches the hair.

The hair is first carefully washed to remove all grease and dirt. It is then moistened with a dilute solution of ammonia and dipped several times into a 1 to 3% solution of hydrogen peroxide. Bleaching is promoted by air and light and may be extended as far as desired. Hair should be oiled after bleaching to prevent brittleness.

Producing Turbidity in Mouth Washes

The problem of making mouth washes cloudy is not as easy as it seems. Although the turbidity produced when the mouth wash is poured into water is no indication of the quality of the mouth wash, popular feeling assumes turbidity to be a measure of concentration.

Infusion of myrrh is generally recommended to produce turbidity, but its effect is quite weak and generally unsatisfactory. Phenyl salicylate (salol) was tried and in 3-4% solution gave good turbidity. Its action, however, is uncertain, the salol sometimes being precipitated in crystalline form; moreover, it masks the odor and taste of the mouth wash.

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ADVANCING THERAPY

Carotene for Cataracts

Carotene—pro-vitamin A—has been used by Dr. T. H. Shastid, of Duluth, Minn., for the treatment of cateracts. Although Dr. Shastid has treated only three cases when he reported his results, he cleared up two of the cases within two weeks and the other case within four weeks by the simple method of giving four drops of Caritol (oily solution of carotene) three times a day mixed with food. Furthermore, imporovement persisted after stopping the treatment.

Charcoal in Infection

Advocates of charcoal and carbon for the treatment of infections will be glad to hear that Dr. E. St. Jacques, of the Jeanne d'Arc Hospital, Montreal, reports in the *Canadian Medical Association Journal* that intravenous injections of animal charcoal clear up a great many types of infections. Using a two per cent suspension of charcoal, with a dosage of three to five cc. every two days, as many as eight injections have been given without untoward results. The doctor finds it effective in salpingitis, puerperal infection, pulmonary infection, cholecystitis, pyronephyrosis, rheumatic fever, and furunculosis (boils to you). In the last named infection, Dr. St. Jacques says that charcoal "reigns supreme." How the charcoal effects a cure "remains a biological secret."

Male Sex Hormone

That endocrinology is progressing the world over is evidenced by the fact that Professor Leopold Ruzika reports in *Nature* that he has synthesized the male sex hormone. His method of preparation is to attack hydroxy-ketone with dihydrocholestorol which gives a modified hydroxy-ketone which is said to be the male sex hormone. If the product is to be used alone or in combination with thyroid, pituitary, or adrenal cortex still remains for pharmacologists to solve.

Is Your Saliva Stringy?

That an alkaline saliva is an important factor in preventing dental caries is reported by Dr. Carl T. Groves and Dr. Carl J. Grove in *Dental Cosmos*, indicating that the litmus paper distributed by a tooth paste manufacturer years ago might again be resumed. The doctors find that: 1. Ammonia content of the saliva appears to be the immunizing factor against caries; 2. Ammonia is a solvent for plaques and salivary mucin; 3. High ammonia content in the saliva retards both dental caries and plaques and mucin. 4. The saliva content of dental caries susceptible people is stringy due to its low ammonia content.

Best Antiseptic

That acriflavine is by far the most effective antiseptic for the mouth is reported by Dr. G. E. Wilson, in *Dental Record*, London. The doctor claims that acriflavine increases in potency in the presence of serum. Those antiseptics which give off nascent oxygen quickly become worthless in the presence of serum, blood and pus. The phenols are not thus altered, but iodine, the chlorine antiseptics, and the mercurials weaken tremendously under such conditions. Acreflavine becomes so strong in the presence of serum that it is 800 times as strong as phenol. The doctor has used acriflavine with success in cases of Vincent's infection, thrush mouth, gingivitis, mouths burned with liquid, halitosis, infected sockets. The disadvantage is that acriflavine, being a brown dye, stains the teeth.

Childlessness and Hormones

Further discoveries in the field of endocrinology are reported by Dr. Allan Winter Rowe, of Evans Memorial Hospital, Boston. Dr. Evans has been able to cure childlessness through the use of hormones. Of 100 people examined, 69 were childless because of a deficient pituitary, and half of these were men. In each of these cases administration of pituitary hormone resulted in pregnancy. Twenty-seven cases were due to thyroid trouble, and of these 21 were men, and 6 were women. In all, 56 men and 61 women were cured.

Further than this, Dr. Rowe treated cases of progressive deafness, or otosclerosis. Two-thirds of the cases examined were due to deficiency in the thyroid, pituitary or some other gland. In all these cases hearing was definitely improved by supplying the deficient hormone. Dr. William Mithoefer, of Cincinnati, has treated chronic sinus trouble by treatment with thyroid, as well as by the hormones of other deficient glands.

Influenza Serum

That a serum for control of influenza has been produced in a horse is announced in the *Lancet* by Drs. C. H. Andrewes, P. P. Liadlaw, and Wilson Smith, the three men who a year ago isolated the influenza virus.

Magnesium in Tonics

That magnesium is an excellent tonic ingredient is brought to light by none other than Dr. E. B. McCollum, of Johns Hopkins, who reports that this element tends to sweeten the human disposition and that grouchiness may be caused in part by the absence of it. Nervous twitches also results from absence of magnesium. Dr. A. D. Hischfelder, of the University of Minnesota, who has worked on the problem, was responsible for the information regarding nervous twitchings.

Distemper Serum

We have just heard a report that an effective serum for distemper in dogs has been developed and is to be marketed by Pittman-Moore Company. We have still to confirm this and expect to have full information for our next issue.

New Medicines Abroad

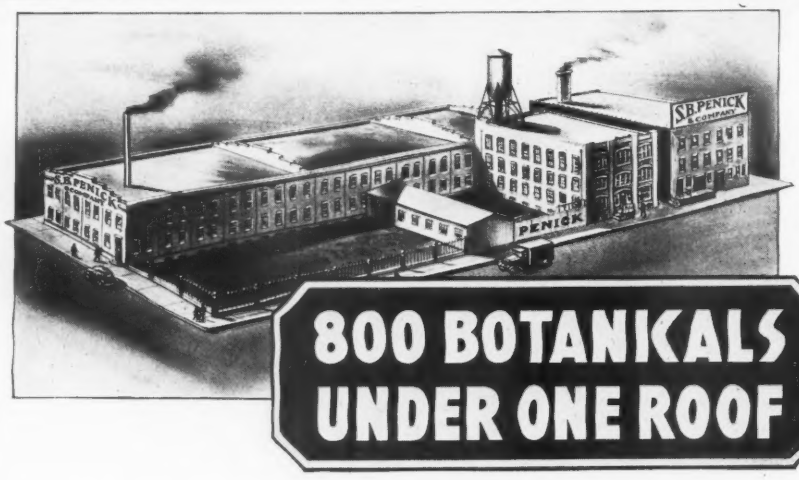
Inalgon, a new analgetic for injection, contains in each 2 cc. ampoule 0.5 g. of Dimapyrin (a soluble complex salt), 0.1 g. of the sodium salt of phenylethylbarbituric acid, 0.0002 g. of hyoscyamine hydrobromide, 0.00005 g. of scopolamine hydrobromide and 0.01 g. of caffeine. Recommended in migraine, uremia, abdominal colic, angina pectoris, etc. to relieve pain and vomiting. Apotheke Kutiak, Wien III.

Saridon, a pain-cure, contains in each tablet, 0.15 g. of 1-phenyl-2, 3-dimethyl-isopropyl-5-pyrazolone, 0.25 g. of p-acetphenetidine, 0.06 g. of allylisopropylacetureide, 0.05 g. of 1, 3, 7-trimethyl-2, 6-dihydroxypurine and starch to make 0.60 g. Roche A. G., Prague.

Spasmosolv in packages of 10 tablets, for internal use, consist of various spasmolytic, cardio-tonic substances such as amidopyrine, theocamphor, caffeine, quinidine, lobeline, etc. The mixture prevents attacks or lessens their severity. It has been used in bronchial asthma, bronchitis and chronic tuberculosis. Syngala, Wien.

Tononervin are glycerophosphate-lkoa tablets. F. Trenka, Wien.

Ventrocythol, for pernicious anemia, is prepared from the mucosa of hog stomachs. Sanabo-Chinoin-Fabrik, Wien.



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Dyastelline "J. Henaut" consist of potassium iodide, caffeine, sodium benzoate, potassium ortho guaiacolsulfonate, codeine phosphate, ephedrine hydrochloride, atropine sulfate, tincture of ipecac, syrup of ipecac, glycerine and water.

Dinitra, J. Delagrange consists of tablets containing 25 mg. of alpha dinitrophenol, 65 mg. bolus alba, talc, sugar, gluten, white gelatine, starch.

Zinc Perhydrol contains 50% of chemically pure zinc peroxide and in the form of a 25% salve is used for open wounds, ulcus cruris, dermatitis, etc. as an astringent, disinfectant, and deodorant.

Pastilles Vichy salt, mentholated, Cooper. Each tablet contains vichyanae aquae sal evaporat. 50 mg., gum acacia, tragacanth, menthae essent., and sugar.

Creme Divine Fredrix contains cera alb., cetaceum, ricin. ol, vaselin., glycerin., zinci oxyd., acid. salicylic., bergamiae essent., lavandul. ess. and heliotropii ess. synthet.

Resyl. Ampules contain 50 mg. of glycero-guaiacolic ester and distilled water to 1 cc.

Artrial and Rhodan-Artrial. Artrial is a combination of 0.25 g. of theobromine and 0.025 g. of phenylethylbarbituric acid. The Rhodan compound contains 0.05 g. of sodium thiocyanate in addition. The theobromine acts as a vasodilator on the blood vessels and the vaso-motor center while the phenylethylbarbituric acid has a spasmolytic effect. Dr. J. Prochnik used this preparation in treating arterio-sclerosis, stenocardia, hypertony, etc. with good results. Dose: Artrial, 1 tablet 3 times daily; after long use, twice daily. Rhodan-Artrial, in treating stubborn cases, 1 tablet 3 times daily for 14 days, then twice daily for 14 days and finally once daily. There are no secondary effects even on long use. Papaverine-Artrial also contains 0.03 g. of papaverine hydrochloride and is chiefly recommended for attacks in stenocardia. (Wr. med. Wschr. 1934, No. 9, p. 251.)

Bulbocapnin Merck. This alkaloid of the formula $C_{19}H_{19}NO_4$ comes from Corydalis cava and possesses a pronounced effect against hyperkinetic conditions. It is useful for treating various types of tremors, particularly the trembling in paralysis agitans and chorea.

Ephetonal. In typical allergic affections with fever, diarrhea and the usual universal urticaria, Dr. C. Nordwig used suprarenin, ephedrin and Ephetonal with varying results. Ephetonal (p-aminoephetonin) is effective in doses of 0.025-0.05 g. There are no lasting secondary effects. According to Dr. E. Wallesch, there is occasion for the use of Ephetonin when ephedrin is not tolerated.

Coffeminal (caffeine and luminal) E. Goldberg obtained good results in the use of Coffeminal in migraine (1 tablet daily). A patient who could not take powders or tablets reacted well to suppositories. The preparation is also of value in the treatment of Meniere's disease (2-3 tablets daily), in vasomotor neuroses (2 tablets daily). Coffeminal is an effective prophylactic in angina pectoris; it is relatively non-toxic, since 14 tablets taken with suicidal intent only caused vertigo. It is useful in epilepsy.

Ephetonin. Dr. Robert Hartlieb recommends the following prescription for diagnostic pupil-dilation: Ephetonin Merck 0.5 g., homatropine hydrobromide 0.03 g. and distilled water to 10 g.

According to Dr. Duschan Maluschew, one, or at most two subcutaneous injections of 0.05 g. of Ephetonin immediately stop post-operative diarrhea.

Ephetonin Cough Syrup, for coughs, whooping cough, grippe, grippe-pneumonia, etc., contains 0.2 g. of ephetonin and 0.08 g. of Dionin to 100 g. of Syrup. Thymi comp. Dose: children over three years, ½-1 teaspoonful 3 times daily. Double the dose for adults. Chem. Fabrik E. Merck, Darmstadt.

Fibrolysim is a compound of Thiosinamine (allylthiourea) and sodium salicylate (Chem. Fabrik E. Merck, Darmstadt). It is a powder easily soluble in water, gradually changing in air. Because of this it is sold only in special forms for use. Fibrolysin ampules, contain 2.3 cc. for intramuscular injection. Fibrolysin suppositories weigh 0.3 g. and a solution is available for use in the eyes. The indications for fibrolysin are alteration of the skin and muscles because of scarring, joint diseases, adhesions, strictures, gynecological illnesses, eye and ear troubles, lung contraction, pericardial and pleural adhesions, nerve injury caused by scarring and multiple sclerosis.

Jodipin. In addition to the 10, 20, and 40% jodipin, an 8.8% product for use in myelography only, is now available. Dr. G. Apitz reported 2 cases, suspected of bronchial carcinoma, where Jodipin was a very useful diagnostic agent. R. Boller treated non-tubercular empyema after pneumonia by puncturing, rinsing with physiological salt solution and injection of 15-20 cc. of Jodipin. Dr. Arnold Lowenstein treated 5 cases of suppuration of the tear ducts with a 20% solution of Jodipin. The same author recommends the compound in the treatment of other suppurating infections of the mucous membrane, e. g. of the sinuses, joint cavities and the pleural and peritoneal cavities.

Perlatan Extra Strong Ampoules contain 1 mg. Perlatan (follicle hormone), glycol ether 01. Olivar. Three ampoules in a package. Boehringer & Sohne, Mannheim-Waldhof.

Asthmocid, an adrenalin solution in combination with hypophysis extract and ephedrine, has been used in the treatment of acute lung affections. "Syngala," Wien XVI.

Austrominal is phenylethylbarbituric acid and is used as a sedative and hypnotic. Dr. Kusy and Mr. Berger, Wien VIII.

Bronchimel are cough lozenges prepared from honey and herb extracts with or without menthol. Ernst Stroschneider, Drosendorf.

Bufotenin is a synthetically prepared toad poison having the same effect as digitalis and useful in treating heart ailments.

Cadogel is a colloidal tar preparation for eczema. Sanabo-Chinoin-Fabrik, Wien.

Cefatin is a salve base free from alkali soaps and irritating ingredients for preparing creams. It requires no special apparatus and will not become either rancid or moldy. It may also be used as an emulsifier. Chem. Fabrik Tempelhof A.G., Berlin-Tempelhof.

Demalgonil-Injektionen are alcohol-free and are injected intramuscularly to relieve pain. Sanabo-Chinoin-Fabrik, Wien.

Limosal is a salicylic acid bornyl ester in salve form used in the treatment of rheumatic conditions. Same Manufacturer.

Peremin Salve contains histamine and is used in the treatment of rheumatic, muscle and nerve pains. Same Manufacturer.

Immenin is a bee-poison preparation for injection in treating joint rheumatism, isehias, neuralgia, etc. It has recently been shown to be effective in the treatment of trachoma. Institute in Wien.

Phlogsan is a non-poisonous germ-free staphylo-and streptococcus mixed filtrate for painting boils, inflamed veins, angina, etc. Same Manufacturer.

Eusirol, with or without codeine bromate or papaverine bromate, is recommended for serious coughs. Apotheke Dr. A. Kutiak, Wien III.

Gertos is a dietetic table salt (a mixture of fruit salts), recommended in heart and nerve ailments, tuberculosis, arteriosclerosis and in all salt-free diets. Gert & Co., Wien.

READERS'

Inquiries must be addressed department on the letterhead of firms. Inquiries from private

EFFERVESCENT SALTS

We have started to make a pleasant tasting effervescent salt but have had a great deal of trouble with it owing to the fact that the material got sticky in the containers thus causing a great deal of returns. Sometimes it gets sticky when we are putting it up. What is the way we can overcome this? New York.

Evidently your product is absorbing moisture from the atmosphere and is breaking down. We judge that you are attempting to make and package a hygroscopic salt without taking precautions against moisture. In order to make such salts successfully it is desirable to make and package them in an extremely dry atmosphere. This can be secured regardless of outside conditions by closing off one room in your plant and installing in it a dehumidifying unit.

HAND LOTION

We would appreciate a formula for an almond hand lotion. We have been experimenting with one but cannot seem to avoid separation in the product. The water stays on the bottom and the other ingredients rise to the top. Milwaukee.

Without having looked at your formula we're willing to bet a hat that your trouble is caused by a lack of an effective preservative. We hope that our prolonged and reiterated insistence on preservatives in all cosmetics using vegetable substances will someday bear fruit. Try this: stearic acid 3.15, glycerin 5, triethanolamine 1, almond oil 5, alcohol 5, gum tragacanth powder 1.5, formaldehyde .15, perfume .25, water 78.95. This makes a 100 parts by weight. Melt the stearic acid with the oil. Mix the triethanolamine and glycerin with half the water and heat to the same temperature. Rapidly stir in melted fats. Warm the rest of the water, stir in the tragacanth which has first been dispersed in the alcohol. (The perfume should be mixed with the tragacanth and alcohol). Then slowly pour this mucilage into the basic emulsion, while stirring the latter very rapidly. Finally stir in the formaldehyde.

FOUNDATION CREAM

We are experiencing a great deal of difficulty making a foundation cream for oily skin, a cream which will hold the powder on and non-vanishing. We also want to make a foundation lotion for normal skin, one for dry skin and one for oily skin. Windsor, Ont.

We are afraid that our subscriber has not given careful thought to the theory of cosmetics, else he would not want to make a non-vanishing cream for an oily skin. The combination of an oily skin and a more or less oily cream would not be very fortuitous and we venture the opinion that our subscriber couldn't put it over. An oily skin does not require cream to aid in holding powder on and if a cream were used it should be either an astringent cream or a vanishing cream or both. Oiliness is a condition which should be corrected, not fostered. Substantially the same thing is true of lotions. The proper lotion to use for an oily skin is a non-oily astringent. A normal and an oily skin can use the same type of lotion and for foundation purposes it should be the liquid cream type. As formulas of the foregoing types have been published in these columns repeatedly they will not again be reproduced but will be sent to you separately.

LINIMENT CREAM

We are working on a liniment cream, using a greaseless cream base medicated with menthol and camphor among other things, and are experiencing difficulty with the product breaking down or liquifying. Can you suggest a formula for a cream that will remain stable in the presence of these ingredients? Philadelphia.

This is a hard question to answer in view of the fact that we don't know what the "other things" may be. We presume you have been using the usual type of vanishing cream. We suggest that you try glyceryl monostearate. Make a base consisting of glyceryl monostearate 12, mineral oil 5, lanolin 2, titanium dioxide .5, white beeswax 8, spermaceti 4, water to 100 parts. This will be pretty stiff and you can reduce its viscosity to suit by cutting down the quantity of waxes.

SYNTHETIC FACE POWDER BASE

Somewhat more than a year ago several references appeared in your columns anent a new synthetic face powder base. It was inferred that this single material would possess all the properties of a first class face powder and that it would be absolutely uniform. At that time we wrote to ask the manufacturers name and you stated you were not at liberty to give it yet, due to some production problems the manufacturer had not solved. Is this material available yet? and would you mind to give us the name of the manufacturer if it is? Chicago.

We have been informed by the manufacturer of this material that work on the product has been completed. Special equipment has been designed and is now operating. At present the material is being given what is said to be the most exhaustive market test ever made on a raw material. The manufacturer informs us that the product will be announced as soon as results of consumer tests have been tabulated, which, they expect will be about the first of the year.

LIPSTICK

As a subscriber to your magazine we take the liberty of writing to inquire whether it would be possible to add the necessary ingredients to the enclosed sample of lipstick to make it more indelible without changing its color. We have a large quantity of this lipstick on hand and await your answer with interest. New York.

It is hardly possible for us to give an exact answer without knowing anything about your formula. However, we should say that permanency can be secured by adding bromo acid 2 to 4% to the ordinary formula.

OIL-LESS HAIR DRESSING

We have searched the back numbers of your magazine hoping that we might learn how to make a liquid hair pomade. We wish to make a vegetable oil preparation without giving the hair an oily appearance. Naturally we want it to keep the hair in place. Chicago.

We doubt whether you can make an oily preparation without its having an oily appearance. However, the product to which you referred is not an oil. You can make a suitable product with alcohol, tincture of quillaia and a little castor oil. The tincture of quillia will keep the hair down and it will not have a greasy appearance.

ALCOHOL

In a recent issue of the Drug and Cosmetic Industry (August 1934) I read an article on Alcohol. It occurs to me that it would be of great interest to manufacturers to have a knowledge of the most practical and efficient methods of completely deodorizing ordinary commercial 96% ethyl alcohol and making it available for perfume manufacture. This subject is rarely if ever, treated in books on perfumery and toiletries. Mexico City.

Our subscriber refers to the rounding off of alcohol to keep the characteristic pungent odor from cutting through. This is done by treating the alcohol with activated carbon under proper conditions. We believe a number of the larger alcohol companies carry a special perfume alcohol which is treated to minimize characteristic odor.

QUESTIONS

individuals cannot be considered. This service is limited to the trade only.

SULFONATED OILS

We have noticed several items in your magazine referring to the use of sulfonated oils in cosmetics. We feel that before incorporating any such oils in any preparations we must know more about them chemically. Why they are called sulfonated oils and if they are made with any sulfur derivatives. We would very much appreciate data concerning their manufacture. Thanking you in advance for information concerning their origin and characteristics. Seattle.

Castor and olive oils are sulfonated to make them soluble in water by treating them under certain conditions with sulfuric acid. The process is too detailed and too complicated to be given here. You can be assured that sulfonated oils are effective detergents and are perfectly harmless to the skin and hair.

CAPSICUM

For what use is capsicum in certain liniments and plasters? Chicago.

Capsicum is a counter irritant. By causing a more or less acute hyperemia it draws blood to the affected area. Also in stronger doses it will actually cause a dermatitis and in this way it facilitates the passage of medicaments through the skin which otherwise would not penetrate.

WARTS

What else besides nitric acid can we put into a wart remover? Boston.

Trichloracetic acid. This chemical is very astringent and hemostatic. It is soluble in water, alcohol and ether.

TEETHING

We are planning to add a line of baby specialties to our regular drug line. This baby line is all to be packaged alike and will include not only cosmetics but drugs also. At this time we are interested particularly in a syrup for soothing purposes to overcome irritability. St. Louis.

You can make such a syrup as follows: Potassium bromide 6, oil of anise .25, peppermint water 40, and gum accacia mucilage to 100.

PREVENTIVE RUB

For a number of years we have been selling an alcohol rub. Now we are planning to extend our business by putting out a special rub especially for sick room use for which we could claim something more than we can claim for alcohol. Can we make something that will refresh the patient and at the same time prevent bed sores? Toledo.

You can make a bed sore preventive by adding an astringent to alcohol or a mixture of alcohol and water. Tannic acid one half per cent or possibly alumnol about three and one-half per cent.

CORRECTION

Owing to a failure on the part of our proof-reader to make certain corrections in the article on nasal preparation which appeared in our October issue, the term ephedrine hydrochloride was used instead of ephedrine alkaloid. The former is not soluble in oil. We are obliged to several readers who called the oversight to our attention.

IRRITANTS

We are making a medicinal ointment containing among other things capsicum, which is objectionable because it colors the finished product a reddish color. What irritant can we use in place of capsicum which will over come this difficulty. Philadelphia.

We will answer your question by giving you a list of irritants for investigation. Without trial we would not want to say how any one of them would turn out in your particular formula. These irritants are: diethyl phthalate, chloral hydrate, mustard oil, and cantharidies.

MISCELLANY

We would like your answer to the following questions: What is the proper way to prepare percolated cucumber juice? What are the properties of corrosive sublimate? (c) Would it be safe to use it in bleaching cream? What is the proper way of preparing quillaia bark infusion? (e) What grade of alcohol is usually used in cosmetics? (f) Does the specification 65-75 in relation to mineral oil describe viscosity? (g) Is sodium cholate the same as sodium chlorate technical? (h) What other name has bromo acid and isohol? St. Louis.

(a) Grind the fresh cucumbers and macerate in alcohol for a week. Then drain off the percolate and press out the marc in a cider press. (b) Bleaching agent. Antiseptic. (c) It is being used as such. (d) Grind and macerate with water or a mixture of alcohol and water. (e) Denatured 39 C, D or A. There are several others. You are referred to the Drug and Cosmetic Catalogue for more details. (f) Yes. (g) No. (h) None. Isohol is a trade name which is not familiar to us. It probably describes isopropyl alcohol.

FORMULA FOR SALE

Noting the number of inquiries we have had for permanent wave solutions a firm offers its formula for sale at $50. Samples will be sent for approval. Those interested will be put into touch.

PHENETIDIN DERIVATIVES

We make a line of household specialties and are planning to extend our line of drugs. In connection with a certain preparation upon which we are working we have been advised to use some of the phenetidin derivatives. Before doing so however we would like more detailed information from you regarding the uses of said products. New York.

The derivatives of para-aminophenol are closely related to aniline aminobenzene. All of the chemicals in this group are quite active, decomposing in the system and giving para-aminophenol or acetylaminophenol. They act as heart depressants and are said to have a destructive effect upon red corpuscles. They are utilized in proper dosage as antipyretics and analgesics. Clinical evidence has shown that these chemicals may be used only with caution.

VAGINAL SUPPOSITORIES

We are planning to add a contraceptive suppository to our line. We should appreciate information on the subject. Penn Grove, Pa.

You are referred to Readers' Questions, October and September issues of this magazine. This will give you some assistance.

COUGH REMEDIES

It is our purpose to manufacture a cough syrup and we would be glad to receive information on the uses of ammonium chloride and creosote in this connection. Baltimore.

Ammonium chloride is used to loosen phlegm. It is particularly useful when the sputum is thick and tenacious as in cases where the cold has become firmly established. Creosote is perhaps one of the best chemicals to use in a cough remedy. It is one of the few if not the only known bronchial antiseptic. It is the only known chemical which will quickly destroy the tubercular bacillus. However, its use is strictly limited because it causes digestive disturbances besides having an objectionable taste.

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RAW MATERIAL MARKETS

Edited by Harry G. Kelbly

Botanicals—Gums

For many weeks the market has been working toward a general firmness in prices. It has been reiterated for some time now that the statistical position as regards many of the items both domestic and imported was poor and that the basic position was such as to warrant higher prices. Clear evidence of this condition was brought out in recent trading. Generally stronger undertones are now sweeping the market without being accompanied by any special improvement in the demand from manufacturing consumers. The fact is that replacements have been going on steadily since the new crops were harvested and the increased prices that dealers and importers have had to pay have at last caused a revision of views concerning values in general. In order to obtain even moderate collections of domestic botanicals, primary market factors have had to pay prices that in many cases were entirely out of line with what was being quoted in the resale market. To get goods absolutely required it was often necessary to purchase others that were not particularly needed and at prices out of line with trade prospects. It was also said that because of Government subsidies to the unemployed many collectors were content to take a dole rather than engage in the hard work entailed in collection. As far as Europe was concerned the drought during the growing season had an adverse effect upon production and this situation is now being felt in the New York market. Replacements from abroad can only be made at higher levels. With an increase in demand as the Winter months arrive it is thought that a further upward revision will be made in even a larger number of items.

ON THESE PAGES WE PRESENT EIGHT PICTURES WHICH TELL THE STORY OF GUM TRAGACANTH PRODUCTION.

1. TRAGACANTH GUM BUSH

Photos Courtesy Jacques Wolf & Co.

2. MOUNTAINOUS REGIONS OF PERSIA IN WHICH THE GUM IS GATHERED. ONLY SAND, ROCKS AND THE TRAGACANTH SHRUBS FROM 1 FOOT TO 2 FEET HIGH.

3. TAPPING THE SHRUB. THE ROCKS, ETC., MUST BE DUG AWAY TO EXPOSE THE STEM—WHICH IS THEN SLIT WITH A SHARP KNIFE TO LET THE GUM OOZE OUT.

fine HEYDEN chemicals

FINE HEYDEN CHEMICALS

CREOSOTE **GUAIACOL**

CREOSOTE CARBONATE **GUAIACOL CARBONATE**

POTASSIUM GUAIACOL SULPHONATE

Acetyl Salicylic Acid
Salicylic Acid
Sodium Salicylate
Methyl Salicylate
Minor Salicylates

Benzoate of Soda
Benzoic Acid
Benzaldehyde
Benzyl Chloride

Formaldehyde
Para Formaldehyde
Hexamethylenetetramine
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Prices

Prices of index commodities were characterized by many small, balancing changes; as a result the DRUG AND COSMETIC INDUSTRY indexes show little change for November. In fact, the 50 commodity index remained stationary at 67.5.

Four prices were altered in the selected medicinal chemical group. Bismuth declined from $1.30 to $1.20 and mercury metal dropped 50 cents to $73.50. On the other hand, cod liver oil rose 50 cents to $26.00 and menthol was raised from $3.25 to $3.35. As a net result, the index registered 75.0 for November as against 74.9 in October.

As a result of 3 reduced prices, the botanical price index declined to 68.3 from the previous 68.6. Buchu changed from 34 cents to 33 cents; digitalis dropped 2 cents to 31 cents; ergot was quoted at 38 cents, a decline of 2 cents.

Eight changes in essential oil prices caused the index to fall only 0.1 point to 52.7. Anise oil changed from 45 cents to 44 cents; bergamot dropped 10 cents to $1.50; bois de rose dropped 5 cents to $1.20; cananga declined from $2.20 to $2.15; citronella declined to 34 cents; peppermint changed from $3.45 to $3.35. Two increases were those in lime oil, from $9.25 to $10.00 and in cassia, from $1.10 to $1.18.

The cosmetic raw material index decreased from 75.0 in October to 74.7 in November. Balsam Copaiba declined from 26 cents to 24 cents; candelilla wax was lowered to 12 cents; and menthol was reduced to $3.35. Glycerin rose to 14½ cents.

PSYLLIUM SEED—The low prices prevailing on French seed has not stimulated consumption to any noticeable extent. From 8½c to 9c per pound is being asked on spot, this representing the lowest level to which this material has declined since it first became an important item.

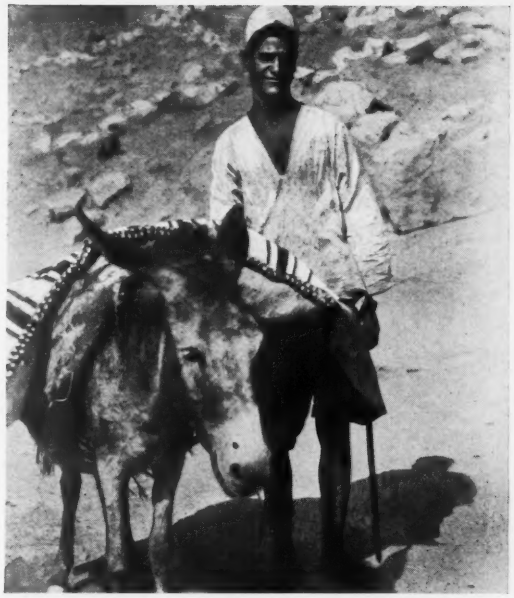
Imports of psyllium seed during 1934 (8 months) are less than half of those for a similar period last year, indicating the decline that has taken place in the consumption of this item throughout the United States.

	Pounds	*Value*
1932	5,503,362	$465,851
1933	4,627,780	259,708
1933 (8 months)	3,850,010	219,438
1934 (8 months)	1,620,567	200,503

PYRETHRUM—Imports during the first 8 months of 1933 declined in volume to 4,683,400 pounds from 5,078,600 pounds in the corresponding period of 1933, but increased in value to $936,800 from $637,000.

VANILLA BEANS—Shortage in stocks of the Bourbon grades resulted in a further advance. The inside price is now $3.00 per pound with the range to $3.50 as to quality. Demand has been not better than fair but with the possibility existing that normal supplies will not be available for several years because of the run down condition of the plantations in the Islands it is not likely that an easier tendency can be expected for a long time to come.

4. BRINGING THE GUM DOWN FROM THE MOUNTAINS. ONLY SMALL DONKEYS OR CAMELS CAN BE USED.



The Mexican beans are inactive both in demand and price but fundamentally strong because of underproduction.

PAPAIN—Exports from Ceylon to the United States during the first 6 months of 1934 amounted to 18,500 pounds valued at $37,300 as against 22,300 pounds valued at $19,500 during an equivalent period of 1933. It will be noted that the declared value per pound approximately doubled.

BUCHU—Lack of business prevented the spot market from fully reflecting replacement costs. The range of price was from 33c to 34c per pound.

Both the quantity and value of imports into the United States during the first 8 months of 1934 increased over a similar period of 1933, as did the average declared value per pound.

	Pounds	*Value*
1932	74,050	$7,507
1933	101,851	10,663
1933 (8 months)	70,701	7,352
1934 (8 months)	101,322	14,723

GUM MASTIC—Hand to mouth trading accompanied a decline in price to the basis of from 51c to 54c per pound.

GUM KARAYA—United States imports amounted to approximately 3,000,000 pounds valued at $270,000 for the first 8 months of 1934, as against 2,955,000 pounds valued at $156,000 for an equivalent period of 1933.

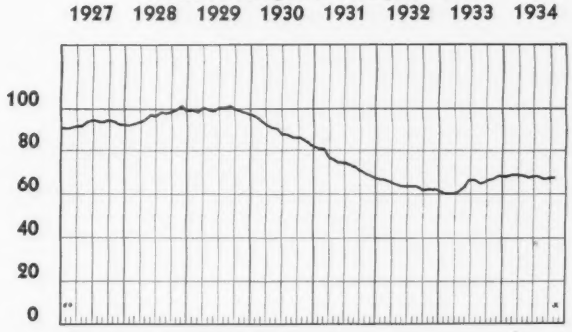
DAMIANA—Concentration of limited stocks in strong hands contributed to a sharp advance to the basis of from 45c to 50c per pound as to seller and quantity.

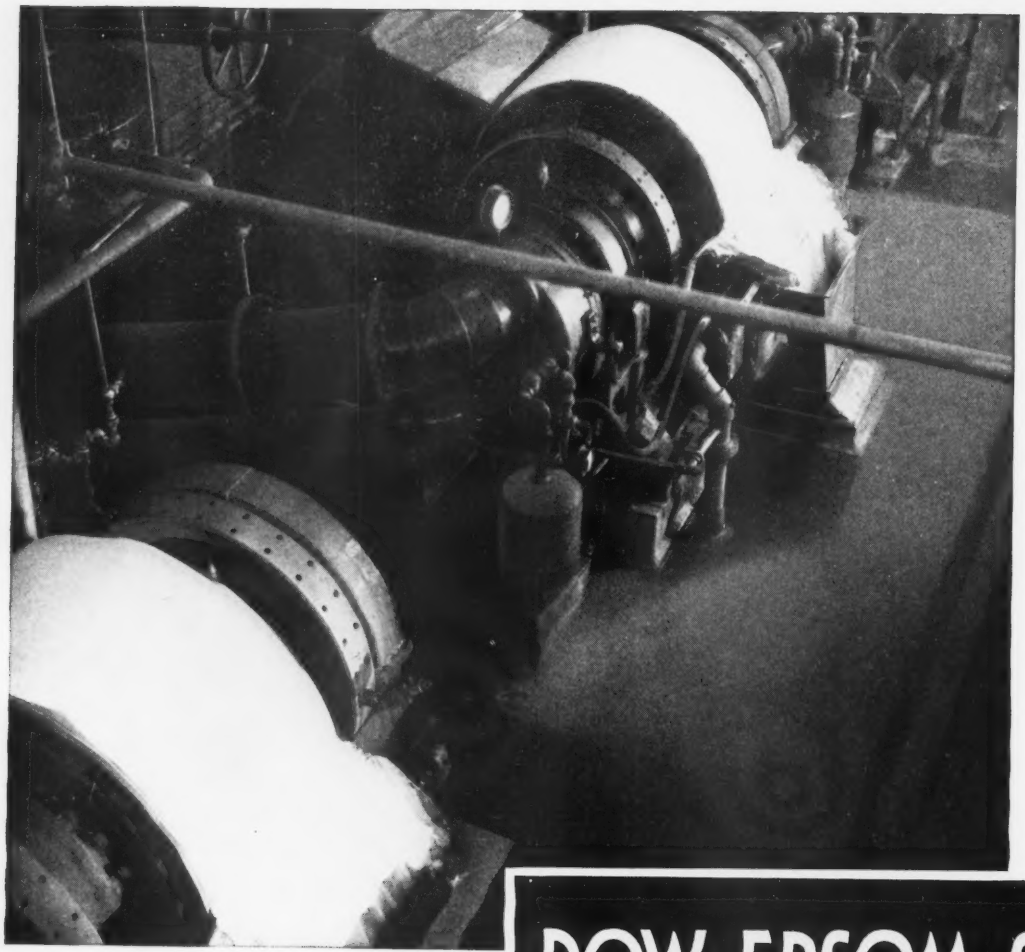
HENBANE—Spot moved up to the basis of from 19c to 20c per pound. Sellers here cautioned regarding a likely continuation of the advance because of primary market position.

BURDOCK—Higher replacement costs resulted in a spot market advance to the basis of from 14½c to 15½c per pound with undertones firm thereat.

HELONIAS—Business was no more active but based on replacement costs the advanced prices of from 32c to 35c per pound were said to be fully warranted.

50 Raw Materials—Weighted Index
1926 Average Prices Equal 100





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Methyl Salicylate, U. S. P.
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Sodium Salicylate, U. S. P.
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TRADE DOW MARK

5. SORTING GUM TRAGACANTH INTO GRADES. WAGES 1 KRAN (ABOUT 6c) PER DAY.

6. WEIGHING AND PACKING IN CASES.

MENTHOL—The past month saw considerable price activity in this item with several advances pushing the spot market up to as high as $3.40 per pound in case lots. During late trading the situation has eased somewhat from the high prices with the spot market range now being from $3.35 in cases to $3.45 per pound in lesser quantities.

The feature of the market would seem to be not so much the advance in price but rather the lack of new business available. The large buyers, well stocked at lower levels, are not in the market at present levels and even the smaller buyers are covered by contracts that were written months back when the price was more favorable from a consumers viewpoint.

Late reports also show some reaction from the high levels on the part of Japanese shippers. This is a normal development for menthol during the period in which Japanese manufacturers buy peppermint oil. There is news that the crop will be much smaller than last year, estimates placing the Hokkaido production at around 800,000 kin and Sambi at 150,000 kin or a total of 950,000 kin. It must be born in mind, however, that last year's production was the largest in 15 years and, although Japan has very little carryover this was accomplished at the expense of overstocking the world consuming markets.

Imports of menthol into the United States during the first 8 months of 1934 indicate an increased demand, reports the Department of Commerce. The figures in 1934 (8 months) were 352,000 pounds valued at $677,000, as against 151,000 pounds valued at $298,000 for an equivalent period during 1933. Every month but one during 1934 witnessed increased imports of this commodity. The declared import value per pound, however, during 1934 was only $1.91, as against $1.97 during 1933. There is a wide spread between these figures (declared import value) and the recent prices of $3.35 to $3.45 per pound quoted on the domestic market early in October.

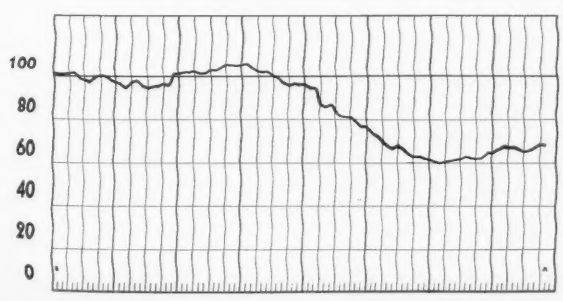
Imports into the United States for the calendar years 1932 and 1933 amounted to 349,000 pounds valued at $729,000 and 448,000 pounds valued at $887,000 respectively. End of quote.

While there has been some increase in consumption of menthol in this country last year, primarily on the part of tobacco interests for the production of mentholated cigarettes, a large part of the heavy importations were for speculative account and the fact that other important consumers availed themselves of the low prices that prevailed earlier in the year. This material has yet to go into consumption and will undoubtedly have an influence on the future trend of market values in this item.

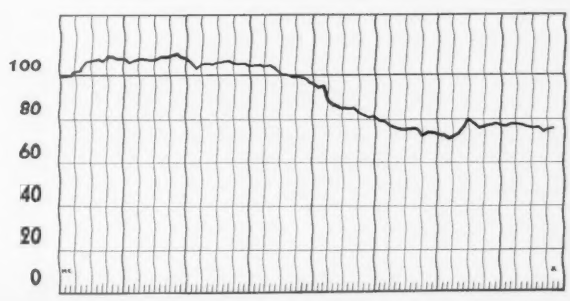
ALCOHOL—Prevalence of mild temperatures well into the Fall season tempered somewhat the activity of jobbers in the anti-freeze formula. The price cutting that instituted the contract season for this material several months ago, particularly in the Metropolitan district, seems to have abated with the result that in most respects conditions are now reported to be favorable. Prices are firm with regard to the higher formula and there is no indications pointing toward unsettlement. There are reports current, however, that one of the very large whiskey distillers will shortly enter the industrial alcohol market. This house is now making beverage alcohol for the trade and it is said they will shortly enter the denaturing business with a complete line of industrial alcohol formulae. What effect this additional competition is likely to have will have to wait until more is definitely known as to what extent their operations in this new field will be pursued.

STEARIC ACID—The Treasury Department will not issue an anti-dumping order against imports of this material from Belgium and England. Following its recent notice of suspected dumping, the Department made an investigation and has concluded that the imports in question are not coming in contrary to the anti-dumping law.

15 Botanicals—Weighted Index
1926 Average Prices Equal 100



15 Medicinal Chemicals—Weighted Index
1926 Average Prices Equal 100



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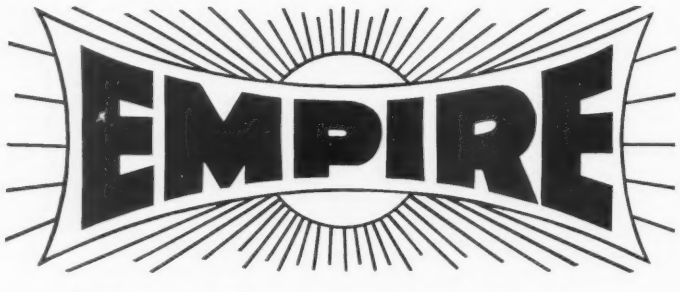

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The designation "Russian Oil" cannot be applied rightfully to oil of any other than Russian origin. This is confirmed by a recent statement from the Food and Drugs Administration which states that:

"The public generally understands the term "Russian" as applied to mineral oils as having a geographic significance. Under these circumstances, the use of the term "Russian" in connection with mineral oils coming from wells elsewhere than in Russia, or in territory that was formerly included in Russia, would be misleading and therefore violative of the Federal Food and Drugs Act."

* * * *

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GLYCERIN—A review of this market shows a further rise in the spot price for chemically pure material. For less carload lots in drums the price is 14½c per pound with the range to 16c for small quantities. Low production, due to low world prices, and difficulty of importing glycerin on account of adverse exchange to the United States, caused stocks of glycerin in the United States on January 1 of this year to be dangerously low. Consumption for the past 12 months has also been exceptionally good and has evidently been sufficient to absorb most of the United States production. Imports, however, have now been stimulated by the advancing American market so that stocks now being carried by both buyers and sellers are more comfortable.

Imports of crude glycerin into the United States, entered for consumption, totaled 11,000,000 pounds valued at $728,600 in the first 8 months of 1934, compared with 4,765,524 pounds, valued at $172,799, in the corresponding period of 1933. Imports of refined glycerin in the 8 month period of 1934, according to preliminary figures, aggregated 1,409,500 pounds, valued at $132,750, against 2,273,262 pounds valued at $129,484 in the January-August period of 1933.

Imports to date this year and known and prospective commitments over the balance of the year will probably bring the total for 1934 to double that of 1933.

Production of crude glycerin in the United States for the first six months of 1934 according to the Department of Commerce, totaled 79,185,631 pounds. This compares with 50,875,656 pounds for the similar period of 1933.

While a better condition now prevails from a supply standpoint, due to the heavier importations and domestic production of crude material, it should be born in mind that glycerin values today on the gold standard are still at an all time low if we except the currency transition period of 1933. Therefore, for the present it is reasonable to expect a steady maintenance of values with a continued broad movement into all consuming outlets.

7. GUM TRAGACANTH ON ITS WAY TO THE COAST. ONCE MORE ON DONKEY OR CAMEL BACK.

Glycerin, a by-product of soap manufacturing, has wide use in industry, particularly in explosives, medicinal, and cosmetic fields. Large quantities are also used in anti-freeze solutions, inks, liquid soaps, and the manufacture of plastics, tobacco, and a score of other products.

The last census of manufactures shows a total of 48 plants producing glycerin in the United States, 38 of which are east of the Mississippi river. Ohio leads with 9 plants followed by New Jersey and New York with 6 each. California and Massachusetts with 5 each, and Illinois and Pennsylvania with 3 each.

BISMUTH SALTS—Decline in the price for bismuth metal resulted in a revision in the price schedules for the salts as follows:

Bismuth Subnitrate:	
U. S. P. 25 lb. box incl.	$1.40 per lb.
5 lb. can	1.50 " "
Bismuth Subcarbonate:	
U. S. P. 25 lb. box incl.	1.65 " "
5 lb. can	1.75 " "
Bismuth Subgallate:	
U. S. P. 25 lb. box incl.	1.65 " "
5 lb. can	1.75 " "
Bismuth Subsalicylate:	
U. S. P. 25 lb. box incl.	2.45 " "
5 lb. can	2.54 " "

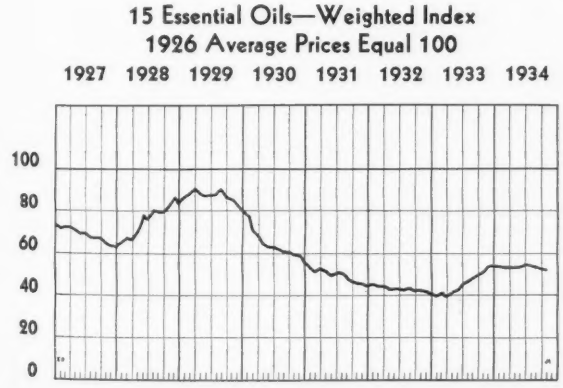
CASSIA—Replacement costs advanced parallel with the advance in the cost of silver. Merchants took a firm view on the market at the new schedules of from $1.18 to $1.40 per pound for redistilled oil.

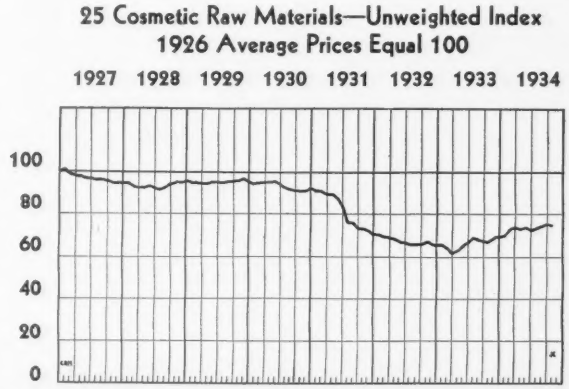
COD LIVER OIL—Spot sales are going through at from $26 to $28 per barrel as to brand and quantity, being an advance over previous levels. Underlying conditions are very firm both here and in the primary market. Recent seasonal demand has reduced available supplies in this market.

Norway's most important cod liver oil market is the United States. England was of considerable importance until the Ottawa agreements, favoring Newfoundland oils, reduced that country's demand to a fraction of its previous demand.

Total American imports of cod liver oil during the first 6 months of 1934 amounted to 1,632,000 gallons valued at $947,000, as against 1,801,000 gallons valued at $764,000 for the first 6 months of 1933.

The *Weekly Herald* and *Newfoundland Trade Review*, of September 15, 1934 states that production of Newfoundland cod liver oil to date is about the same as last year, but total production depends on success of fall fishery. Local prices are steady and it is expected that production will be absorbed without any decline in price. There has never been keener competition than at present exists in the industry. Norway has been pushing her way into the American and Canadian market, having to some small extent been routed from the English markets by English oil produced under the Empire preference.





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Essential Oils

Irregular characteristics featured the essential oil market during the past month. Flow of orders to the New York market was spotty in some quarters. No definite price trend developed, however, the majority of materials holding at unchanged levels. Firmer undertones developed in certain of the French flower oils such as rose, jasmin and lavender. Old stocks have been cleaned out at the lower prices that generally prevailed for last year's crop. The new levels are said to place these particular oils at a more normal level. Thyme, erigeron, crude birch tar and rectified cananga are reported in a strong statistical position because of small production this year. These oils will bear watching as to price trend. Lack of demand brought an easier tone to the market for wormseed. Spot offerings were not only lower but were priced in accordance with the views of individual sellers. Ceylon citronella oil was more competitive since the material from Java forced the issue on spot.

ORANGE OIL—Italian oil was lower at from $1.60 to $2.25 per pound as to seller and brand. West Indian oil also declined to the basis of from $1.60 to $2.25. The California oil adhered firmly to the basis of $2.10 with production said to be engaged well ahead.

Orange oil from French Guinea (French West Africa) was introduced in the market of Europe in competition with the European product in 1930, and this trade has now assumed considerable importance, states the Department of Commerce.

United States import statistics tend to confirm the statement made regarding the increasing importance of French Guinea as a source of orange oil. During 1932 and 1933, when the United States imported 114,000 pounds and 149,000 pounds of orange oil respectively, France and French Guinea supplied approximately 20,000 pounds and 47,000 pounds, whereas Italy furnished only 44,000 and 45,000 pounds. During former years Italy occupied first place as a source, supplying from 50 per cent to 75 per cent of the imports.

In 1933 French Guinea exported about 104 tons, which were absorbed by the European market, a quantity much lower than the exportation possibilities of the Fouta region alone. Surveys demonstrated that the Mamou, Pita, and Labe districts had one orange tree (that could be counted upon to furnish an important production of oil) to every three inhabitants. Exports for the first six months of 1934 amounted to 845,000 quintals as compared to 469,000 for the first six months of 1933 and 359,000 for the first six months of 1932.

PEPPERMINT—Spot market declined to the basis of from $3.35 to $3.60 per pound for natural oil and from $3.60 to $3.95 for redistilled. Country prices offered the farmer were lower and in most instances primary market dealers showed a disposition to do more business.

8. THE FINAL STAGE, IN THE RIVER STEAMER BOUND FOR THE PORT; THENCE THE GUM ON ITS FINAL JOURNEY TO LONDON, MARSEILLES OR NEW YORK.

American peppermint oil the most important essential oil produced in the United States, has enjoyed better demand abroad since the beginning of 1934, due in part to increased activity among consuming industries and in part to more favorable exchange according to C. C. Concannon, Chief of the Commerce Department's Chemical Division.

Exports of this flavoring material amounted to 168,000 pounds, valued at $449,000, during the first eight months of the year, compared with 158,000 pounds, valued at $375,000, for the corresponding period of last year.

Although peppermint oil is produced in England, Continental Europe and elsewhere, the United States is by far the principal world source. Production averages around one-half million pounds annually but in some years exceeds one million pounds. About 50 per cent of the total production is exported. From 25,000 to 50,000 acres in Michigan, Indiana and Washington are devoted to the cultivation of mint, the plant from which peppermint oil is extracted. Other producing regions are located in Oregon, California, North Carolina, and elsewhere.

The declared export value per pound of domestic peppermint oil has risen during the past 4 years. United States exports of peppermint oil during the calendar years 1929 to 1933 are as follows:

	Pounds	*Value*
1929	221,561	$795,464
1930	233,294	700,177
1931	229,537	438,202
1932	262,210	455,017
1933	234,709	566,734

THYME—High quality oil was strengthening abroad and spot dealers offering such material were disposed to advance quotations. Red oil ranged from 70c to $1.05 per pound as to quality and seller. White oil ranged from 80c to $1.15 per pound.

OTTO OF ROSE—While imports into the United States during the first 8 months of 1934 amounted to only 17,510 ounces as against 23,825 ounces for the same period of 1933, the 1934 (8 months) value totaled $137,800 as against $136,700 for an equivalent period of 1933. Imports for the calendar years 1932 and 1933 were 15,460 ounces valued at $104,900 and 33,000 ounces valued at $205,400, respectively.

LIME—Distilled oil was lower at from $5.50 to $6.00 per pound. The market is weak and it is said better than above prices could be obtained on a fair sized order. Expressed oil, on the other hand, continued quite firm the prices on spot ranging from $10 to $12 per pound as to seller and quantity. Not much expressed oil is available on spot and dealers are said to be having difficulty in locating any offerings for shipment.

Imports of oil of lime into the United States during the first 8 months of 1934 amounted to 65,000 pounds, as against 41,500 pounds during an equivalent period of 1933. Of even greater interest is the decided increase in the declared value per pound, as shown in the following table:

	Pounds	*Value*
1932	38,671	$220,879
1933	41,496	215,289
1933 (8 months)	41,496	70,755
1934 (8 months)	65,019	340,695

BALSAMS—Peru continues as scarce as heretofore. Plentiful stocks are still being held up by the Department of Agriculture because of adulteration. The fact that some importers paid the higher duty assessed accounts for the fact that there is any stocks available at all. Prices ranged from $2.85 to $3.25 per pound with deliveries being made in one and two pound lots only.

Stocks of Copaiba balsam seem plentiful and prices on spot have eased to the basis of from 24c to 26c per pound. Imports into the United States during the first 8 months of 1934 were three times greater, and the value five times greater than during the like period of 1933. Details of the trade are shown in the following table:

	Pounds	*Value*
1932	118,071	$7,944
1933	120,758	13,486
1933 (8 months)	66,444	6,552
1934 (8 months)	83,239	27,641

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Price $18.00 per pound
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Price $12.00 per pound
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GARDENIA "M" "B"
Price $5.00 per pound
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JUNIPER OIL—Before the World War Hungary was one of the principal suppliers of juniper-berry oil, but that northern part of Hungary which was the principal source of juniper berries, is now part of Czechoslovakia. Crude juniper-berry oil is produced in Czechoslovakia by a large number of small distillers, mainly in the Province of Slovakia. There are only five or six refiners of juniper berry and other essential oils who buy the crude oil in lots of 10 to 30 kilograms from the small distillers. Until early in 1933 Czechoslavok producers of essential oils prepared the oil from the berries direct, but the market since then has been so small and the prevailing prices so low that it does not pay them to do so now. Much of the refined juniper berry oil goes to the United States, where it is used for pharmaceutical purposes and as an ingredient in gin.

MUSTARD—Artificial oil was higher at $2.05 to $2.30 per pound. Replacement costs were firmer.

ANISE—Spot softened to range of from 44c to 47c per pound. Market said to be suffering from oversupply.

CANANGA—Slightly lower but with somewhat wide range as to seller. Native scheduled at from $2.15 to $2.75 per pound —rectified $2.65 to $3.00.

CITRONELLA—Competition for business in Ceylon oil more pronounced with lower prices noted on spot. The range was from 26c to 28c per pound. The range in Java oil was narrowed to from 34c to 40c per pound as to seller and quantity.

LAVENDER—The market for flower oil abroad was very firm because of reported underproduction this year. Indications pointed to an advance later on as the smaller production came upon a market that was practically devoid of carry-over stock.

Imports of lavender oil into the United States during the first 8 months of 1934 amounted to 103,000 pounds valued at $311,000, as against 88,700 pounds valued at $131,000 during a similar period of 1933. It will be noted that there has been a marked increase in the declared import value per pound.

SPEARMINT—Declined 5c per pound to basis $1.85 to $2.10 as to quantity and seller. Demand was light.

LANOLIN—Continued firmness featured this market. Supplies of crude wool grease in this country were seriously affected by the recent textile strike and it is also reported that there was an increase in the cost of production due to the fina- settlement of this controversy. Condi tions in Germany, from which country comes a large part of the imported lanolin, are anything but favorable to a steady supply of raw material at normal prices. The general situation is said to be such as to warrant higher prices for spot lanolin.

SANDALWOOD—Exports of oil of sandalwood from British India during the 3 fiscal years ending March 31, 1932, 1933 and 1934, amounted to 113,600 pounds, 56,400 pounds and 74,000 pounds, respectively.

PETIT GRAIN—Paraguayan petit-grain oil is produced during the summer months, from October to March, by a number of small stills (number not known) scattered throughout the country.

The oil is collected by buyers who in turn sell to exporters in Asuncion, who clean, prepare, and pack it for shipment.

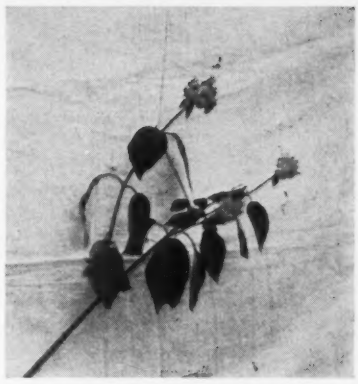
At no time are production figures more than approximate, since producers make no reports. The approximate total, from January 1933 to the end of March 1934, is 140,000 kilograms. This figure includes a carry-over of 10,000 kilograms.

ATTAR-OF-ROSE—From Turkey comes reports of the development of the attar-of-rose industry through cooperatives and the aid of the banks. A refinery is to be established to insure a supply of clean and pure attar of rose to local and foreign markets.

DILL—Stocks were in a very small way. There was said to be no domestic oil available and very little imported material. The crop of herb in the middlewest was seriously affected by the drought so that there is expected to be very little of the weed oil produced this year. Seed oil was receiving more interest from manufacturing consumers. Prices ranged from $4.25 to $6.00 the range representing the oil distilled from seed and the oil distilled from weed.

HENNA—France continues to be the best market for Egyptian henna, followed by the United States. Total exports during the first 6 months of 1934 decreased considerably as compared with the corresponding period of 1933 owing to small production as a result of unfavorable weather. Prices accordingly rose, but were not able to compete abroad with the less expensive Indian grade, and Egyptian henna consequently has had a slack period. During the first 6 months of 1934 the United States imported 58,071 kilos of Egyptian henna valued at 1,451 Egyptian pounds.

CAMPHOR—Exports from Japan in the first half of 1934 amounted to 1,630,600 kin (value 2,674,460 yen) compared with 1,549,200 kin (value, 2,494,538 yen) in the corresponding 1933 semester. During the first six months of 1934 the United States imports amounted to 6,622 kin valued at 1,133,909 yen. For the same period of 1933 imports amounted to 5,647 kin valued at 928,507 yen.



HYDRANGEA—FLOWER AND ROOT

CARNAUBA WAX—Number 1 was higher on lack of nearby offerings. Furthermore shippers in Brazil made few if any unsolicited offerings of new crop wax for October-December shipment. There seemed to be a lack of adequate reserves here and most of the recent purchases in the primary market were said already to have been sold into consumption. Price for number 1 gum ranged from 35½c to 36c per pound.

KAMALA—Some importers reported as having obtained supplies at attractive levels and were offering more freely at lower ranges. From 22c to 23c was the spot market. This item is now selling at very low prices in comparison with previous years. Buying on the part of farmers, for vermifuge purposes, has been poor.

MULLEIN FLOWERS—Requirements of manufacturing consumers have been light. Some holders on spot offered at from $1.00 to $1.05 per pound.

DAMIANA—Weaker sellers strengthened views as it was said previous decline had run too low. On spot 2c per pound higher at from 24c to 25c per pound.

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Industrial Design and the Future, by Geoffrey Holme, 160 pages, Studio Publications, Inc., New York, $7.50 net.

An analysis of the essential design needs of industry with a discussion of the means of supplying them and how these means could be improved. Beautifully illustrated with examples of modern design in industry.

Dr. Copeland's Home Medical Book, by Royal S. Copeland, 582 pages, John C. Winston Co., Philadelphia, $2.95 net.

According to the author, "it is the purpose of the book to tell in simple language how to relieve pain, and what to do to prevent or to cure some of the many ailments which are likely to invade every home."

Chemistry in Medicine, edited by Julius Stieglitz, 757 pages, Chemical Foundation, Inc., New York.

This book is intended to present to the public as well as to the medical profession the great possibilities for advance in medical science through further intensive cooperation between chemistry and medicine.

Codes, Cartels, National Planning, by Bruno Burn, 413 pages, McGraw-Hill Book Co., New York, $4.00 net.

An analysis of the problems of cartels and trade associations together with for creating machinery for industrial self-administration.

Modern Publicity, edited by F. A. Mercer and W. Gaunt, 128 pages, Studio Publications, New York, $4.50 net.

A beautifully illustrated collection of the year's best advertising which gives a pretty sound idea of what is being done and can be done by advertising.

Endocrines, Enzymes and Protein Compounds, 119 pages, Digestive Ferments Co., Detroit.

Information in connection with the manufacture and use of the products of this company.

Irish Moss

(*Continued from page 495*)

with sea water by rolling the hogsheads in the marshes; after which it was again spread out and subjected to the bleaching process, this alternate treatment being repeated four or five times, until the product was of a yellowish or white color. As this process was very slow it has been discontinued, the bleaching now being done by the use of sulphur dioxide as an oxidizing agent for this purpose.

After bleaching, the moss is baled and shipped to Havre, which is the export depot. Total imports into the United States total about 300,000 pounds per annum packed in bales of approximately 225 pounds each.

There are various grades which are sorted according to color and cleanness. The lightest after bleaching is the most valuable. It is said that the weather conditions prevailing during the 1934 producing season also had adverse effects on the quality of this material. Recent samples received here seem to indicate a preponderance of the technical grade which is used mostly in the leather industry to put a high glossy finish on leather. The medicinal grade is therefore further strengthened by this development.

In medicine Irish moss is used primarily as an emulsifier. It also has value as a demulcent, a nutrient and a dietetic.

Gargles

(*Continued from page 493*)

the water and alcohol. Dose: a teaspoonful in a glass of water.

Formula No. 5.

Potassium chlorate	2.5%
Tincture of ferric chloride	10. "
Glycerin	30. "
Water	57.5 "

Procedure: Dissolve the potassium chlorate in water. Mix the ferric chloric with glycerin and add to this solution. As potassium chlorate is also explosive, it should be handled carefully. Dose: a teaspoonful in half a glass of water.

Tooth Powders

(*Continued from page 478*)

its earthy taste. Talc is used occasionally in the so-called acid tooth powders. Purified zinc peroxide, tricalcium and dicalcium phosphate and titanium dioxide are used to a somewhat limited extent. They are, of course, much more expensive than chalk. The polishing agent or base of the powder should be inert, harmless, non-toxic, and effective besides being 200 mesh or better. Starch and orris root are often used for the purpose of keeping the powder free flowing. Incidentally, tricalcium phosphate is very useful in this connection.

When developing a formula we should remember that tooth powder is a *mechanical cleansing agent,* which should be efficient, safe, pleasant and easy to use. As such we can make a perfectly good powder with nothing more than precipitated chalk, powdered soap and flavor. A more complex formula, however, seems to have a stimulating effect on the imagination of the advertising man, so we shall present a variety of suggestions.

Before doing so however we shall epitomize manufacturing procedure because it is exactly similar for all types of product. The first step is to put the flavoring materials into a condition which will facilitate their distribution through the batch. This is done by mixing the menthol or other crystalline flavoring substances with the essential oils. When solution has taken place, the flavoring compound is thoroughly mixed with the sugar and sifted, all the lumps being rubbed out. If saccharine is used instead of sugar, it is dissolved in a sufficient quantity of alcohol, the oils are added to this solution and the whole rubbed up thoroughly with a little of the chalk. If the product is to be colored, a

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color base is made by rubbing up the color with a little chalk until it is uniform and then this base is added to the batch. When soap is used it is usually mixed with the sugar and flavoring materials. Finally the chalk and other basic materials are put into a mixer, the flavor base and color bases are added and the whole batch thoroughly mixed after which it is sifted. Some manufacturers sift the ingredients before mixing, as is the case when a combined sifter-mixer is used. The mixer may be any kind of dry mixer such as a face powder mixer, a tumbling barrel, or a ball mill. The sifter should be fitted with a 160 mesh cloth or its equivalent and any type of sifter will do. Many large makers use turbine sifters, some use bolting reels, others use ordinary vibrating sifters. The cans may be filled on the usual face or talcum powder fillers. One manufacturer converted a vacuum filler for the purpose. There is now available a new machine designed especially to fill and close tooth powder containers. This machine is said to be practically dustless.

Tooth Powder No. 1.

Precipitated chalk	83.0%
Powdered neutral white soap	5. "
Flavor	2. "
Powdered sugar	10. "

Procedure: The flavor is mixed with the sugar, the soap is added and then this mixture is mixed with the chalk. The length of mixing time depends upon how well the flavor base is rubbed up and also upon the kind of mixer employed. Under ordinary circumstances and with ordinary equipment one or two hours is ample. If the product is colored a longer period will be required—about 3 hours. When a pulverizer is used the whole batch can be made in a few minutes and ordinarily will not require sifting.

Note: The amount of flavor in the above formula is approximately the amount that would be used for a bland flavor. Stronger flavors will cut the percentage to be used very materially. In this and all succeeding formulas the percentages of flavor given is an approximation only. The amount of sugar stated is maximum and may be reduced.

Tooth Powder No. 2.

Precipitated chalk	81.0%
Sodium lauryl sulfonate	2. "
Powdered neutral white soap	5. "
Powdered white sugar	10. "
Flavor	2. "

Procedure: As above.

Tooth Powder No. 3.

Precipitated chalk, light	78.0%
Sodium sesqui carbonate	4. "
Sodium lauryl sulfonate	3. "
Powdered sugar	10. "
Powdered neutral white soap	3. "
Flavor	2. "

Tooth Powder No. 4. (Milk of Magnesia Type)

Magnesium hydrate	60.0%
Magnesium carbonate	20. "
Powdered neutral white soap	8. "
Powdered sugar	10. "
Flavor	2. "

Procedure: As above.

Tooth Powder No. 5.

Precipitated chalk, light	50.0%
Magnesium carbonate	27. "
Powdered sugar	9. "
Sodium perborate	7. "
Flavor	2. "
Powdered neutral white soap	5. "

Procedure: As above.

Tooth Powder No. 6.

Precipitated chalk, light	79.0%
Colloidal clay	6. "
Sodium lauryl sulfonate	3. "
Powdered sugar	10. "
Flavor	2. "

Procedure: As above.

Tooth Powder No. 7.

Precipitated chalk	68.0%
Dicalcium phosphate	10. "
Sodium bicarbonate	7. "
Powdered neutral white soap	3. "
Powdered sugar	10. "
Flavor	2. "

Procedure: As above.

Tooth Powder No. 8.

Precipitated chalk	45.25%
Purified zinc peroxide	20. "
Sodium perborate	14. "
Powdered sugar	10. "
Powdered neutral white soap	10. "
Flavor	.75 "

Procedure: As above.

Tooth Paste No. 8. (Acid Type)

Talc	70.9%
Colloidal clay	4. "
Potassium chlorate	2. "
Thymol	.1 "
Milk sugar	15. "
Starch	6. "
Flavor	2. "

Procedure: As above.

Note: In all the foregoing formulas saccharine can be substituted for sugar and the chalk or polishing agent increased to take up the difference. As saccharine is about 300 times sweeter than sugar only a minute amount is required to give equivalent sweetening. A small percentage of starch or orris root may be added to any of the above formulas.

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